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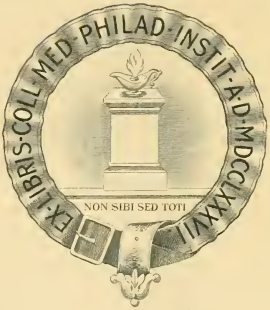

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Analysis

	Percentage
Sugar (in form of Syrup)	6.58
Caffein (derived from tea)	.026
Phosphoric acid	.034
Citric acid (from lemon)	.003
Flavorings, Caramel, etc.	.436
Mineral matter (ash)	.001
Alcohol (from flavoring extracts)	.075
Water	92.845
Total	100.000

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Eugene Byron Glenn, M. D., Asheville, N. C.

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The Charlotte Medical Journal

VOL. LXXIV CHARLOTTE, N. C., JULY, 1916. No. 1

EUGENE BYRON GLENN ,M .D., ASHEVILLE, N. C.

Edited by Drs. D. W. and Ernest S. Bulluck, Wilmington, N. C.

Dr. Eugene B. Glenn was born in Buncombe County, N. C., June 21, 1871. His father is Marion Sevier Glenn. Both of his parents are native North Carolinians. His Grandfather, Eli Glenn, was born in Eastern North Carolina, in 1812. At the age of eighteen he wended his way across the Blue Ridge and settled in Buncombe County.

Dr. Glenn lived and worked on his father's farm until he was seventeen years old, attending free school in the winter, and developing muscle and brawn on the farm in summer. From 1887 to 1889 he was in high school and from there he was placed under a private instructor. He was ambitious for a better education and continued study at Weaver College, Weaverville, N. C., graduating with the class of 1891. In September, 1892, he began the study of medicine at Jefferson Medical College, Philadelphia, Pa., from which he was graduated in 1896 at the head of his class. After graduating he worked as physician in St. Timothy's Hospital, Roxborough, Philadelphia, laying a solid foundation for the superstructure which he has built.

After spending some time in the Philadelphia hospitals he returned to North Carolina, secured his license to practice medicine in this State in 1896 and joined the North Carolina Medical Society in 1899. Since that date he has been a regular attendant and only on very few occasions has he failed to read papers at the annual meetings. Usually his paper deals with some surgical subject, giving his experiences which are always listened to with great interest and are considered invaluable among surgeons. On surgical subjects his ideas are excellent and logically presented. His style of writing is always attractive when dealing with his favorite subjects.

In 1912 he joined the Tri-State Medical Association of the Carolinas and Virginia. He has taken great interest in that organization. At the Charleston meeting in 1915 he read a paper entitled, "Malignancy of the Ovaries: Report of Case Complicating Pregnancy." It received the applause and commendation of all the members present.

As a young physician he had the foresight to see the need in Asheville, N. C., and the will to meet it. That city is still his home and the scene of his varied and extraordinary activities. Since his location he has worked in Asheville Hospital, 1901-1904; Biltmore Hospital, 1904-1913, and in Meriwether Hospital since 1913. At the death of Dr. F. T. Meriwether in June, 1913, a staff of sixteen physicians was organized, and Dr. Glenn was elected Vice-Dean, and by virtue of that office he became Chief of the surgical staff. In this institution he is also instructor of student nurses in surgical nursing.

His has never been an idle existence even for a day. When his general practice warranted the opportunity Dr. Glenn has sought to perfect his knowledge and skill by doing post-graduate work at Philadelphia Polyclinic, Jefferson Medical College Hospital, Mayo Clinics, and various other hospitals in Chicago, Nashville, Louisville, Baltimore, Washington, Philadelphia, and New York. Surgery has always been his principal specialty. His surgical work has increased by leaps and bounds, and he has necessarily given up general practice to a great extent.

The medical societies have felt the worth of this efficient surgeon. He has been chairman on various sections of the State Meadical Society, and he was elected President of the Buncombe County Medical Society for the year of 1915. Aside from this, he is connected with the American Medical Association and Mississippi Valley Medical Association. He attended the Clinical Congress of Surgeons of North America in Boston in 1915; he also attended the Congress when it met in New York in 1913, and in Chicago in 1914.

Dr. Glenn has become invaluable to the civic life of his city. About a month after his location in Asheville he received the Democratic nomination for coroner for Buncombe County by acclamation. Since that time he has held official and semi-official positions in the city and county administrations, working along the lines of health and public and civic improvements. While he was County Superintendent of Health he stimulated the interest of the county commissioners in the county poor and an alms house resulted, the most up-to-date of its kind in the South. He and his father have jointly spread the gospel of good roads, and the building of the first macadam roads and iron bridges in his county were thus ac-

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complished during the time his father was on the County Board of Commissioners. Dr. Glenn was one of the directors of the Buncombe County Good Roads Association for six years.

Dr. Glenn is the ranking Surgeon in the North Carolina National Guards, having held continuous commissions in the Guard for a period of eighteen years.

Dr. Glenn has devoted some of his time to the fraternal orders. He is a member of all Masonic Bodies, including Blue Lodge, Commandary Scottish Rites, 32 Degree Mason, Member of Oasis Temple, Mystic Shrine, Pisgah Lodge of Knights of Pythias, Member of Swannanoa Lodge of Odd Fellows, Member of the Junior Order, member of Asheville Lodge of Elks No. 608, of which he is a charter member, and holds a life membership card.

Nine years ago this man of a thousand affairs married Miss Elizabeth Elliott Lumpkin, originally of Georgia. Four children have been born of this union.

THE OPERATIONS OF CHOICE IN PROLAPSE AND RETRODISPLACEMENT OF THE UTERUS.*

By J. E. Ashcraft, M. D., Monroe, N. C.

In the curative treatment of prolapsed uterus and retrodisplacement of the uterus, we are necessarily forced to operative procedure, if we except a few cases of simple descensus uteri and simple retroversion. In descensus uteri, we know that many cases are amenable to hygienic and tonic treatment, and one may always at least consider the possibilities of the pessary and tampon. But, alas! too often they are only deceptive by-paths, and not at all avenues to cure. It is only in the recent puerperal cases that we have right to place much confidence in the pessary, although one may be excused for using it in the young matron of child bearing age where it retains the uterus in the normal position and where it is worn with comfort.

When one is convinced that the adnexa are healthy, the Alexander operation is unquestionably the one of choice. The bug-bear has been how to convince oneself that he is dealing with healthy appendages. This uncertainty of diagnosis has inspired an unwarranted lack of confidence in the operation itself. Laterly, however, many operators are taking the ground that, in a virgin, or in a nulliperous woman evidencing no evidence of infection under careful bimanual examination under anesthesia, one is warranted in the procedure. Of course, disease of the appendages or evidence of intraperitoneal adhesions constitute positive contraindications. Careful examination renders the risk so slight that it can be disregarded.

While it is not so satisfactory as suspension or fixation in complete procidentia, because it does not secure as much elevation of the uterus, and it does not afford as strong a support against recurrence; carefully selected cases give satisfactory results when everything is considered. It is not properly thought of in women past the child bearing age, for all such cases plainly call for ventral fixation. The operation has practically no mortality, and subseuent pregnancies pass without dystocia.

The use of the word "fixation" has no proper place in the nomenclature descriptive of the operation devised by Kelly. This operator never did a fixation; his operations always being suspensions. The early crude operations furnished many relapses and added many difficulties to pregnancy and labor, but perfected technic attained through gradual evolution has largely eliminated these dangers.

Under present conditions, the following are accepted as indications:

1. A retroflexed uterus bound down by adhesions.

2. A retroflexed uterus with diseased tubes and ovaries (If the adnexa require complete removal, it is better to amputate and remove the uterus instead of suspending it).

3. Prolapse of the uterus and vagina. In these cases a suspension must be combined with the required plastic operations on perineum, vagina, and cervix, or relapse is to be expected.

4. If, in the course of the Alexander operation, one or both of the round ligaments are torn, ventral suspension is to be substituted.

The objections which have been urged against the operation are not considered valid. They are:

1. That the uterus is fixed and is held in an unnatural position.

2. That dysuria is a frequent and persistent symptom.

3. That serious difficulties follow in event of pregnancy and labor.

The first objection cannot hold against a properly performed operation, since the band of adhesion quickly lengthens until the uterus reaches its normal level in the pelvis—witnin—generally two or three months after the operation. Admitting these facts, which have been abundantly

*Read before the North Carolina Medical Association, Durham, N. C., April 20, 1916.

demonstrated by Kelly's reported cases, one can not give credence to the tales of dysuria, for there can be no interferance between bladder and uterus. Operators of experience declare that they do not find this symptom in evidence any more frequently following this operation than following any other abdominal operation.

It is generally conceded that reported cases of difficulty in labor following such an operation, were cases of "fixation" of the uterus; and were not "suspension" operations. It is not conceivable that a suspension band three to five miliameters long, permitting a freely moveable uterus with the unhindered faculty of expanding and contracting in any direction, could be a factor in any difficulty inducing dystocia.

It has not been my purpose to consider the operation of shortening the utero-sacral ligaments, since it is yet on trial, and the time is not yet long enough to determine its value. Likewise, I pass by the operation devised by Wylie, Dudley, and Mann, for intraperitoneal shortening of the round ligaments. Although Simpson has perfected the operation, a final estimate in comparison with the known results of the Alexander operation, and with the Kelly operation for suspension, is not yet in place. Only a more extended experience can decide.

To me it seems that in the Alexander and the Kelly operations we have the operations of choice, provided always, of course, that due precautions are taken to insure careful examination under exactly the right conditions and that the cases are properly selected.

SOME COMPLICATIONS AND SEQUELAE FOLLOWING OPERATIONS ON THE TONSILS.*

By C. W. Banner, M. D., Greensboro, N. C.

The subject of this paper suggested itself to me after an examination and study of the end results, of a great many throats that had been operated on, both by myself and others; and leads me to the conclusion that many of us have been doing tonsil work without a proper study of finale results, and have sacrificed a great many tonsils that might better have been left alone, and also that we have operated on many cases in a way that was not to our own credit or the patients' best interest. If we leave in place, diseased bases of tonsils with enlarged crypts that will hold cheesy deposits, to make a breeding place for pathogenic bacteria, or if we cut or remove part of the anterior or posterior pillars of throat, causing scar tissue to form with its inevitable contraction on healing, or allow the edges of the pillars to unite in a false position, forming pockets for the retention of food and debris ,we have not only done no good but may have left the throat of our patient worse off than when we found it. Of the complications following tonsillectomies, perhaps the most common one and one which gives us most concern is, **post operative hemorrhage,** and I suppose that all who have ever done much tonsil surgery has had more or less experience with this complication. All have seen the so-called **bleeders,** but my own experience and observation, lead me to believe that there are in reality very few cases of excessive post operative hemorrhage from this cause; and that the large majority of hemorrhages come from enlarged or misplaced vessels that have unavoidably been cut, or else from the use of **sharp** cutting instrument in severing the **vessels** at the base of the tonsil; or perhaps from cutting or lacerating the front edges of the pillars, thus severing small vessels in the muscular tissue which tissue by its more or less continuous contractions and relaxations prevents the blood from forming a sufficiently firm clot in its severed end to controll the bleeding.

The treatment of these hemorrhages, like most other troubles that we are called upon to treat should be first of all **preventive,** and I believe that most of them **may be** prevented, and the following rules, if adhered to, will certainly reduce cases of post operative hemorrhages to a minimum.

1st. Ascertain before operation if patient is a bleeder.

2nd. See that there is no acute inflammation present in tonsils, or if present that it is reduced to a minimum, by treatment, before operation is undertaken.

3rd. Do not operate on adult females during or just preceding their menstrual period.

4th. Use blunt dissection as far as possible in removing tonsils.

5th. See that all hemorrhage has stopped before patient is allowed to leave operating room.

6th. Keep patient **quiet,** in **bed,** with head elevated, and allow no visitors.

With regard to first rule would say that the finding of a family history of hemorrhagic diathesis or even a direct history of a bleeder, does not necessarily prohibit us from operating on the case, if the patient is in **urgent** need of opera-

*Read before the North Carolina Medical Association, Durham, N. C., April 19, 1916.

tion, for if we properly prepare the patient, and carefully perform the operation, we may do so with very little danger from hemorrhage. It has been my custom in such cases to put them on a good tonic, and diet them for two or more weeks, then give Elixir Chloro-Calcium Compound for about one week, then to operate on one tonsil only, taking great care to produce as little traumatism as possible, using a blunt dissector for separating the tonsil, and remove the lower part of base with a cold wire, tightening it very gradually and allowing the vessels time to contract, and clot to form, as they are being severed; then keep my patient very quiet, in bed, with head and shoulders elevated and with chipped ice in their mouth, until all tendency to hemorrhage has ceased. It is my custom in all cases after removal of tonsil to make pressure with gauze over the tip of my finger into the fossa from which the tonsil has been removed, until hemorrhage has about ceased, before beginning operation on the second tonsil. By doing this, I seldom find it necessary to ligate a vessel or apply a hemostatic clamp or even use a styptic.

As regards the second rule, would say that of course we find some cases where there is **always** more or less inflammation present in the tonsils at all times, and it is impossible to get the throat entirely free from inflammation until the tonsils (which are the predisposing cause) are removed, but we should see to it that this inflammation is reduced to the minimum and that no **acute** infection is present at the time of operation.

The third rule needs no discussion.

With regard to the fourth rule would say that it is my custom to start the dissection with a sharp tonsil knife, but as soon as I have the front part of the pillars separated, I finish the dissection with a dull dissector, and cut off lower part of base with a cold wire snare, usually in a Beck's Tonsilectome. In this way I am able to reduce hemorrhage to a minimum and am less liable to cut the pillars or to leave small particles of the gland in place, either of which are a predisposing cause of post operative hemorrhage.

The fifth rule is one that I think we are not quite as careful in carrying out as we should be, and that is to see that all hemorrhage has stopped before the patient is removed from the operating room. There is nothing that so frightens the patient, or the parents as blood, and if we can keep the sight of blood and blood stained towels, cloths and clothing from them, they are never so nervous about the case ,and **besides** it is a rather an embarrassing and unpleasant duty to have to take a patient back to the operating room to stop a hemorrhage ,after they have once been sent to their room.

The sixth rule applies to all operations on tonsils and should be rigidly enforced, **quiet in bed**, is imperative, and if we elevate the head and shoulders, there will be less tendency to hemorrhage. Exclusion of visitors (unless perhaps the mother, if the patient is a child) I also think is important, for all visitors seem to feel called upon to talk to your patient, and of course the patient must of necessity answer back to some extent; so absolute quiet can not be maintained if visitors are allowed. I always caution my patient against efforts to cough or clear the throat as these often start up hemorrhage, and if I notice a tendency to **cough** I give a cough sedative. If there is any tendency to oozing, I give them chipped ice to hold in their mouth, and often apply ice pack around outside of throat.

Infection is another not uncommon complication following tonsil operations, and is one that is not always preventable. It occurs to some extent in a large percentage of all cases operated on but usually is trivial in its consequences if treated promptly, and Iam persuaded that it may be prevented in most cases, if proper treatment and preparation of the patient is carried out before and during the operation. No tonsil should be operated on that has an acute inflammation or infection present at the time of operation; the patient should be in the best possible physical condition, as he will thus be able better to resist infection. The anaesthesia should be just sufficient to keep the patient quiet during the operation, and the operation must be done as quickly as is consistent with thorough and complete enucleation. No loose shreds of tissue should be left dangling from the operated field, and all bleeding should be stopped before the patient is dismissed from the operating room. The preparation of the patient should also include spraying the parts with an alkaline antiseptic spray at intervals for several hours before the operation and I think the suggestion of someone, recently published in one of the midical journals, to apply a 25 per cent. to 50 per cent. solution of the Tincture of Iodine over the tonsils, just previous to operation, is a good one, and also the liberal use as a mouth wash of a 1-500 solution of Permanganate of Potash during the healing process. This not only acts as an antiseptic but as a styptic as well. Quiet rest in bed is also of importance, as it promotes healing and lessens the tendency

to hemorrhage and consequently of infection also.

Injury to the voice is another sequel of tonsil surgery that should give us concern, for it is one that frequently means much to the patient, especially if the patient be a singer or public speaker, or anticipates engaging in any vocation or calling in which he will need a clear voice, and distinct enunciation. My experience and observation lead me to believe that this is a very rare sequel following tonsil operations that have been carefully and properly performed, and certainly this is the case with regard to children, for I think there is almost always improvement in vocal resonance following a carefully performed operation in young subjects. There are several theories as to the cause of loss or injury to the voice in these cases. One is that it is due to injury to one of the branches of the recurrent laryngeal nerve which supplies the muscles of vocal organs. Another theory is that the vocal organs have accustomed themselves to the obstruction caused by the presence of the enlarged tonsils and that any disturbance of this relation of the parts disturbs voice production. This, I think, is usually true temporarily, but it has been my observation that the vocal organs soon adjust themselves to the new condition of things and that the finale result is an improvement in the voice. Another theory, and one that I think accounts for almost all cases of permanent alteration of voice is that it comes from contraction of the scar tissue following these operations; and while in the majority of cases there should be very little contraction from this cause, still in a few cases that are very adherent or where the gland itself is made up largely of fibrous connective tissue which is very firmly adherent to the pillars, we will find it impossible to enucleate the tonsils without wounding the pillars to some extent and this I think accounts for the large majority of permanent alterations of voice that we see as a result of tonsil operations.

Clipping the uvula, lacerating the palate, cutting or pinching the lips, or injuries to the teeth or gums of the patient are complications that are usually due to carelessness in operating and as a consequence are inexcusable.

Accidents or complications from anaesthesia in these cases are of course the same as in all other surgical operations, except the added danger of getting blood or vomited matter into the trachea, and the usual precaution of having the stomach and bowels empty applies with greater emphasis in these cases. I know of few surgical proceedures that when properly done and in properly selected cases, will result in greater benefit to the patient; neither do I know many in which the end results are more disappointing if the operation is not properly and carefully performed. The longer I work at this class of cases, the morel am convinced that it should be classed with the major operations of surgery; that it is always a hospital operation and one that should usually be done under general anaesthesia.

EMETINE.*

By Edwin G. Moore, M. D., Elm City, N. C.

Emetine was known to exist as an alkaloid of ipecac nearly a century ago and the first description we have of it was given by Pellatier in 1817, who advocated it in the treatment of dysentery and chronic diarrhoea. Thus it will be observed that it is not a new drug, nor the patent infant of a new discovery. It is neither the worthless nostrum of an advertising propaganda, nor the specific cure of all of physical disorders or mental delinquency. It is, however, the active principle, the spirit and the essence of that faithful and honored drug of our ancestors, known to them and bequeathed to us as plain old ipecac.

Veritable as the Balm of Gilead, it soothed and comforted them in times of doubt and trouble, and wrought many miracles of faith that added to the renown and glory of the then much respected medicine man.

It was the "sine quo non" for a fit of blues, or a fit of indigestion, and a remedy "par excellence" when vitiated humoral secretions played its active and important role in the causation of disturbed functions, and consequent unhappy forebodings.

But every decade, and sometimes every annual cycle of years, records notable changes of methods and customs, not only in the pursuit of industrial life and the diplomacy of trade, but equally so in the system of educational teachings, and the evolution of scientific investigation. In the light of this experience the ipecac of yesterday has become the emetine of today with a fuller and more exact comprehension of its application and value.

It is but frank that I should say, and it is but honest that I should not claim any originality either in the discovery or the application of this alkaloidal drug which at present is attracting the attention of

*Read before the North Carolina Medical Society, Durham, N. C., April 20, 1916.

so many clinicians, having been warmly praised by some, and roundly abused by others. My object will be accomplished to present such facts as I may be able to obtain before our Medical Society and trust to a liberal discussion, based upon observation and experience, by its individual members, out of which great good, let us hope, will come both to the honor of the drug and the credit of the profession.

Ipecac for a number of years has been advocated and used with varying experiences in the treatment of dysentery. Endorsed by some,and condemned by others, this drug ran its doubtful course through a long period of years, scoring success in some instances and proving worthless in others. Aside from the uncertainty of its curative effect, it met with much disfavor on account of the great nausea it produced, and the irritation which frequently followed its use.

Walsh in an article published in 1891, entitled "What is the rational treatment of Acute Dysentery," said that after an extended use of the drug he could not recommend it above other drugs, and that in his hands it had not proved to be any better than other drugs not even supposed to have any selective action in the treatment of this disease. This only coincided with the experience of many others who gave it hopefully, only to be disappointed in the results obtained. Occasionally however such good results did follow its administration in certain cases that it continued to find its advocates and supporters, and therefore remained a vexed question in medical experience. It is a matter of observation that no discrimination was made as to the nature or type of dysentery so treated, except that it was the acute form.

It was in 1910 that Vedder, an American Officer stationed in the Phillipines, where dysentery found a congenial climate, began a series of experiments and investigation to determine if ipecac had any decided action against dysentery bacilli, or amebas, and if such action was present, to what constituent of ipecac was it due?

This was the dawn of a new thought, and the birth of a new idea. The result of these experiments were highly suggestive, and demonstrated the fact that ipecac possessed no specific bactericidal effect against the bacillus of dysentery, but was a powerful amebicide inhibiting the growth of ameba, and that emetin in a dilution of 1 to 10,000, and later in a still weaker dilution of 1 to 100,000, destroyed the ameba. From these experiments the conclusion was reached that the amebacidal action of a given preparation of ipecac was due to the emetin it contained, and that its potency was proportioned in exact ratio to its percentage. In a later publication by Vedder in 1912 these experiments were re-affirmed, and it was also pointed out that the greater part of the emetic action of ipecac was not due to emetin, but rather to another component element known as caphaelin. These facts formulated the idea that if emetin was an amebicide, and without being an active emetic, it should prove an ideal remedy in the treatment of amebic dysentery. This process of reasoning was well founded, since the dream of hope came true.

In 1912, Rodgers, attracted by the experiments and impressed by the statements of Vedder, was the first to utilize in a practical way the application of the remedy in a scientific manner. Finding that a very dilute solution of emetin in the mucous stools of amebic dysenteric patients produced physical changes in them, as seen under the microscope, and that stronger solutions appeared to kill them, he decided to use the drug hypodermically in cases of severe amebic colitis, and his results were so encouraging, and withal so successful, that he published a series of cases so treated which attracted such widespread attention that physicians throughout America and the countries of Europe have adopted his method of treatment, and the report of their experiences largely confirm the great value of emetine as a specific amebicidal agent.

Emetine Hydrochloride occurs as a white chrystaline powder, freely soluble in alcohol and water. It is usually prescribed in the form of ampuoles, or hypodermic tablets. Its dose ranges from 1-3 to 1 grain daily. That it is a specific amebicide no longer admits of doubt, for it has met the unqualified endorsement of the professiion in this particular field of therapy.

Not content, however, to rest its honors with this distinction, enthusiastic advocates are claiming pleasing and beneficial results from its use in a number of other conditions, but which, at the present time, has not fully met a hearty endorsement.

Pyorrhoea, or Riggs' Disease which has ever been the opprobrium of the Dental Profession is now being treated with eme tine, and while it has not proven curative in all cases, yet such favorable results have been obtained from its use that they are encouraged to continue the experiments with a larger faith and a greater hope.

Experiments with its use in typhoid fever need to be mentioned only to call attention to the fact that work along this line has been initiated, but the reports at the present time are too meager to attempt a statement of any value.

As a haemostatic agent, however, with especial reference to pulmonary hemorrhage, it has received the sanction of high authority, and the medical profession awaits with keen interest the confirmation of further reports.

Wood says that the alkaloids of ipecac have a peculiar predilection for the lungs, and that the hypodermic injection of emetine in cases of hemorrhage from the lungs has often been effective and decidedly prompt in action.

Flandin, who was greatly impressed by the disappearance of blood from the stools in cases of amebic dysentery treated by the hypodermic injection of emetine, considered the possibility of its value in the treatment of haemoptysis. He determined to try the drug, and reports most gratifying results. In eight cases of his own, and twelve cases reported by other physicians, so treated by the hypodermic injection of emetine hydrochloride, he says the hemorrhage was promptly controlled, and succeeded after other measures had failed.

Personally I have had no experience with the drug in this condition, but more than likely many of you have, and I feel confident you will be glad to furnish such experience and such evidence as you may possess.

TRACHELOPLASTIC OPERATIONS AND THEIR RESULTS.*

By Drs. D. W. and Ernest S. Bulluck, Wilmington, N. C.

The classic methods of amputating or repairing the injured uterine cervix, introduced by Sims[1] and Emmet,[2] have recently been the subject of reinvestigation. The light of recent study tends to lessen the confidence that has been reposed, in these measures, for so many years.

An analysis of the immediate and ultimate results of the classic amputations performed in Dr. Howard Kelly's clinic, during the past twenty years, has been made by Dr. V. N. Leonard[3] and the conclusions drawn from his work are that:

Nearly five per cent. of the patients presented serious post-operative haemorage, occasionally after established convalescence.

Ten per cent. of the cases suffered from decided augumentation of a pre-existing menorrhagia or dysmenorrhoea.

Four-fifths of the women in whom pregnancy might have reasonably been anticipated to follow the operation, remained sterile.

On the other hand, fifty per cent. of the pregnancies occurring after cervix amputation terminated prematurely, while among the few who progressed to full term even a larger portion experienced difficult and prolonged labor. * * *

The operation in all of the cases presented, consisted of the classic circular amputation, removing about three centimeters of the cervix above the external os.

Later Leonard[4] tabulated the post-operative effects of trachelorrhaphy for comparison with those of cervix amputation concluding as follows:

The presence of a marked endocervicitis should be considered as contra-indicating simple trachelorraphy, for although trachelorraphy may render a mild endocervicitis more amenable to treatment, it cannot be considered like amputation of the cervix—a curative measure for this condition.

Fertility is much more likely to follow trachelorraphy than amputation of the cervix.

After amputation of the cervix, the incidence of abortion and premature delivery is greatly increased, while trachelorraphy has no effect upon the course of subsequent pregnancy.

Labor after cervix amputation is usually difficult while after trachelorraphy it is almost always normal; hence amputation of the cervix is to be avoided in the child-bearing period, trachelorraphy being the operation of choice in properly selected cases.

Assuming the accuracy of Leonard's conclusions it remains to decide what criteria should determine the selection of a given case for simple trachelorraphy and how we should perform an indicated amputation of the cervix without incurring the post-operative hemorrhage and the disturbances in the menstrual, reproductive and parturient functions.

It should be borne in mind that it is not the cervical tear but its consequences that we attempt to remove by operation. That this is true is evidenced by the number of women whose tares are unaccompanied by abnormal conditions. The dominant factor that establishes the morbidity of a cervical lesion is the incidence of infection. (Sturmdorf) The infection may begin as a puerperal sepsis with incomplete recovery or it may begin insiduously and continue its chronic course. The subjective symptoms leading to operation are not those of the cervical lesion. The cervix merely acts as a portal of entry; the infection passes from there to the lymph vessels; these enroute emmesh every bundle of uterine muscle. This intramuscular lymphagitis partially immobelizes the muscle bundles

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by plastic infiltration of their sheaths. (Schwarz) The periadnexitis following the extension of the process thickens the tunica albuginea of the ovary and prevents the normal rupture of the graafian follicle; causing the development of retentioncysts and functional amenorrhea. This is the pathological process which results in chronic pelvic abscess, pyosalpinx, sactosalpinx, ovarian sclerosis and uterine fibrosis. The uterus undergoes normal rhythmic contractions and when this contractibility is impaired by the results of infection, abnormal contractions result; this is evidenced by dysmenorrhea and local circulatory stacis productive of myometrial menorrhagia. This nutritional and functional derangement alters the endometrium and its specific decidual potentialities causing sterility and abortion.

Since the cervical lesion admits the infection simple trachelorraphy finds its utility during the puerperium; when its prophylactic potency is greatest. The early operation having been omitted and chronic infection ensuing, Emett's trachelorraphy while a plastic success is not curative, for the symptoms leading to operation are the result of an extension of the infection to regions beyond the cervix. Again the cancerous potentialities of the chronically inflamed area beyond the range of Emett's operation must be borne in mind. Ewing[5] has recently shown that "chronic catarrhal endocervicitis precedes cancer in a great majority of cases . . and the cervical erosion is the most definitely established lesion known to initiate cervical carcinoma. We are forced therefore to the conclusion that late trachelorraphy wherever indicated is not curative, and when apparently curative was probably superfluous.

While thus restricting trachelorraphy to the puerperium we augment the range of cervical amputation for chronic cervical lesions. Sturmdorf[6] has attempted to obviate as far as possible those derangements, noted by Leonard, that follow this operation. He believes that the post operative effects are the result of the technique of the classic method of the cervix amputation. This writer points out that the circular ablation of the cervix is followed by a retraction of its peripheral muscle fibres: since these fibres are longer and therefore have a greater range of contractibility. This peripheral retraction and the weakness of the delicate endometrial edge renders the sutural retention purely transitory. The two flaps separate and expose a beveled cervical stump which heals by granulation. If the patient comes to child birth, the annular cicatrix incapable of physiologic retracticle expansion, presents the dystocia noted in Leonard's tedius deliveries. In some instances the flaps do not heal and the raw areas becoming infected reestablish the original lesion. To avoid these short comings Sturmdorf has evolved an operation for the removal of the cervix, that in consideration of the poor results following the older procedures certainly warrants an extensive trial. He describes his operation as follows:

1. Outlining and free mobilization of an ample circular flap from the vaginal coat of the cervix.

2. Complete excision of the entire cervical mucosa to the internal os, with preservation of its peripheral muscular layers.

3. Sutural coaptation of the vaginal cuff to the denuded cervical cavity.

The dilator and curette are absolutely excluded from our armamentarium for this operation.

The main object in the first step is the formation of an ample mobile cuff of vaginal mucosa. With this in view, the outlining incision is carried around the cervix, closely skirting the demarcating border between its healthy vaginal sheath and the diseased mucosa, running parallel to the indented line at the lacerated points. The edge of vaginal covering thus outlined is freely mobilized by blunt dissection from its underlying tissues, completely around the entire cervix, up to the level of the internal os, exposing the circular arteries as for high amputation. In very extensive lesions it becomes necessary to brush the lower pole of the bladder from its uterine and vaginal attachments for a sufficient distance upward.

The pouting everted cervical mucosa is now circumcised and cored out of its muscular bed as a hollow cone, leaving a raw funnel-shaped cavity.

Trimming the loose vaginal cuff to serve as an accurate lining to the interior of this muscular funnel, its retention in this position is secured in the following manner: Beginning with the anterior segment of the circular flap, a long strand of heavy silk-worm gut is passed on its vaginal surface, transversely through the free border of its central tip one-eighth of an inch from the edge, like a mattress suture, the entrance and exit of the strand embracing a quarter inch of tissue.

The right free end of the suture is now carried into the cervical cavity to a point just above the internal os, where, piercing all tissues in a direction forward, upward ,and to the right, emerges from the vaginal surface at the base of the flap.

The left free suture end after reaching the same point above the internal os, passes in the same manner forward, upward, and to the left, so that the two free ends, diverging in their transit, reappear on the surface of the anterior vaginal fornix, about one-fourth inch apart,

where they are left loose for the time. The suture course for the posterior flap segment runs parallel to the above, but in a posterior direction, its free ends emerging on the surface of the posterior vaginal fornix. Now by tightening each individual set of suture ends, we draw the flap segments into the cervix, line its whole cavity with vaginal mucosa, the edge which is thus approximated to the circumference of the internal os, where it is retained in apposition as long as desired. In most cases no further suturing is necessary or desirable but should either lateral edge gap, an additional chromic stitch may be introduced. The sutures are left long to facilitate their removal.

For greater ease and control in directing the suture through the cervical tissues, a double-curved Peaseley needle should be substituted for the round needle after engaging the tips of the flap in the first stitch.

A narrow strip of iodoform gauze, introduced with the object of maintaining a flat, uniform coaptation of all raw surfaces, finishes the operation. This gauze is removed after the fourth day, when the patient is permitted to leave the bed and walk about. The silk-worm gut is removed after two weeks when the loops are found loose and accessible.

The specific features of the operative method thus outlined effect the complete elimination of the infectious focus by extirpation of the diseased cervical mucosa; preserve the normal arrangement, contour, and functions of the cervical musculature; obviate the mechanical difficulty; and secure the permanency of accurate sutural coaptation of flap to stump.

I do not claim an ideal restitution to the normal in all cases—so perfectly a balanced mechanism as the uterus, when once deranged, cannot be perfectly restored by surgery—but I may contend that the procedure here advocated obviates in the greatest number of cases the detailed short comings in the prevailing tracheloplastic methods and results.

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VANCE CO. METHOD OF HANDLING TUBERCULOSIS, AND EDUCATING THE PEOPLE IN DISEASE PREVENTION.*

By D. C. Absher, M. D., Vance County Health Officer.

This paper is presented not for the purpose of airing a new theory but simply as a history of some things that have actually been done.

Only a few months ago the Vance County Board of Health adopted rules which require: (1) that all cases of tuberculosis shall be reported to the county health officer within twentyfour hours; (2) that the health officer shall visit all such cases within three days after the report is received and instruct the patient and family as to how to prevent the spread of the disease; and (3) that no room used by such patient shall be occupied after the death, recovery or removal of such patient until after the room has been thoroughly disinfected by being scrubbed with a 1-500 solution of Bichlorid of Mercury, and such further means as may be prescribed by the County Health Officer.

In operation these rules are proving very satisfactory. The Doctors are reporting their cases in a satisfactory way, and teachers, Social workers, and others report a number of cases that have no attending physician.

When the patients are visited, the health officer finds that his efforts are appreciated. Even those who do not know, and do not want to know, that they have tuberculosis appreciate our efforts, if we approach them in a tactful manner. The health officer makes no effort to enforce observance of preventive measures. He merely states that he came to see if he could be of service in advising the patient and family as to how to prevent the spread of the disease. This statement is usually kindly received by patient and family, it is then easy to get information as to what methods they have been using. After conversing with the patient and showing him the importance of preventive measures, he is supplied with a dozen sputum cups and instructed how to use them, how to dispose of them, and where to get more. Finally a leaflet giving rules as to "How to keep others from catching the disease," and "How to get well," is placed in the hands of the patient.

The Bureau of Tuberculosis of the

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State Board of Health is sending literature to all reported cases, but there is every reason for believing that the influence of a personal visit is far more valuable, but of course these personal visits are not possible in counties not having full-time health officers.

Some one will say that this is work that should be done by a visiting nurse. Very true, but what are you going to do if you have no visiting nurse? Some of us are compelled to do work that should be done by a sanitary inspector. One is as much our work as the other, and I, for one, believe that if we must have our hands tied by lack of help or by inefficient help, we should have them tied to the more important work. I think that it is more important to instruct tubercular patients as to the danger of plastering tubercular spit all over the baby's lips and face than to prosecute some city dweller for having such an insanitary (?) thing as a pile of chips or old papers in his back yard. It is the purpose of health work to reduce the amount of sickness and the number of deaths. Tuberculosis is guilty of causing more sickness and more deaths than any other disease. Let us direct our efforts where they will count for most.

As to disinfection after "death, recovery or removal," that rule is a little more difficult to enforce because deaths, recoveries and removals are not always reported to the health officer. However, this rule is proving more and more satisfactory as it becomes better known to the people; and besides, we must recognize the fact that the patient is the chief source of danger.

I might say just here that phases of work like this cannot be tabulated so as to show big results on paper, consequently they are not taken into consideration by some who make comparative estimates as to the effectiveness of the full-time health officer; but I want to say that even the petty politicians are beginning to see that such work is important.

As to educating the people in disease prevention, several methods are available. The easiest, as well as the most important method is that of working with and through the schools. In Vance during the present school year, a "school health day" has been held at every white school in the county as well as at several of the colored schools. The patrons of the school were invited to the exercises, and the program consisted of a lecture illustrated with charts by the health officer; often the County Superintendent of schools and other citizens made short talks, after which each child was examined for defects and any found were reported to the parent on cards for the purpose. Finally a public health catechism was given to each pupil and a prize offered to the child who learned it best. To the high school pupils a medal was awarded for the best paper on certain public health subjects.

The hearty co-operation of our school forces deserves the highest praise. To the medical profession belongs the credit for founding preventive medicine, but further progress in putting those discoveries into practical use depends largely upon the educational forces.

I said that teaching the children is the most important method of teaching disease prevention, and it is, for the children will rule this country a few years hence; but it is important for our present purposes to reach the adult population, and how to reach them is the burning question. We all realize that "it is hard to teach an old dog new tricks," but it must be done. We can reach some of the adult population through the school children, the others will have to be taught by casual conversation, occassional talks at Churches and other public gatherings, and through newspaper articles.

A month or two ago we arranged for some meetings in Henderson which have been productive of much good. Dr. McBrayer, of the State Sanatorium, addressed two of these meetings on Sunday at Churches, on the following evening a public health conference was held in the graded school auditorium. At this conference our four definite county health problems (Tuberculosis, Malaria, Sewage disposal, and Control of the Contagious Diseases) were stated and then discussed from every point of view by doctors, health officers, lawyers, educators, county and city officials, dentists, newspaper men, and others.

I mention this conference merely to indicate a method of reaching, interesting and teaching the adult population; and I believe that this method could be used to advantage in many other counties.

I believe the present public health problem is largely one of education. Teach the tubercular and he and his family will protect themselves and others better; teach the children how to live hygienically and we will have a stronger race tomorrow. Some one has said: "If the people knew more they would do more." We might add that before they do more, they must know more. Ours is not a people that can be driven to do things blindly; there must not only be a reason, but the people must know that reason before we can expect their intelligent co-operation with our efforts in their behalf.

A CLINICAL STUDY OF SOME UNUSUAL CATARACT CASES.*

By John Hill Tucker, M. D., Charlotte, N. C.

I shall take for granted that you will believe that my successes in eye cases are normal for one of my position and experience, therefore, I shall not tire you with a single report of what I deem a successful case as far as results go, however, I believe that the very greatest amount of good the average worker in any special line can be to his fellow workers, is to report and discuss the unusual and what might popularly be termed his failures for there is not a truer saying than "The wise man profits by the experience of others." With these remarks as an apology for not presenting other than my own personal experiences in this short paper, I beg now to report the two cases I specially have in mind.

The first case I wish to report is Miss M. T., whom I first saw April 30, 1913. At that time there was a small central spot in each lens, larger in the left eye, the vision in right eye was twenty-sixtieths and twenty-eightieths in the left eye, which could not be improved with lenses. She could read large type with right eye, but any type was uncertain with left eye. She was of a nervous nature, exceedingly anxious to have something done, as she was entirely dependent upon her own efforts for a livelihood. She had tried and could not hold several positions, the last position was matron at a large South Carolina Boarding School.

The Cataracts from her positive assurance had entirely developed within the past five years. She had as a girl and younger woman used her eyes most constantly, being passionately fond of books and fine needle work, never dreaming of having eye trouble. I could well judge from her intense and high strung natre,u with such energy as only those natures have, that she had used her eyes under the most trying circumstances and when about 29 year sof age first noticed a failing vision, which had gradually developed until I saw her in 1913, 34 years of age.

The spot was a posterior cortical cataract, although I have never been able to fully persuade myself in these cases whether the posterior capsule of the lens is not also involved. After many months of indecision on her part as to whether she would submit to an operation, I operated in October, 1914, my procedure was the usual needling operation, which I will briefly report:

1st. With a dilated pupil the point of incision should be at least two or three mm. from the limbus and in introducing the knife the pressure should be against the back of the knife both on entrance and exit, for in this way your incision will not be too large for the shaft to plug wound and prevent as far as possible the loss of aqueous at the time of operation, also preventing a prolapse of the iris. The reaction from the needling was as I should have desired, but on the third day when I had decided to try and remove the lens, she complained of intense temporal pain and I found her increased intra-ocular tension to be 45 mm.—in other words, she had developed an acute operative glaucoma. Warm application and esserine, pilocarpine and dionin were used while the tension remained up and the eye became inflamed. In my judgment I should do an iridectomy, but with this my troubles really began, for with increased tension and a very decreased anterior chamber, it was hard to enter my keratome for with the loss of aqueous and the swollen lens it made the iridectomy difficult, however, it was accomplished with reduced tension and relieved pain.

After the eye had subsided, about six weeks later, I attempted to remove my needled lens by making the regular section, however, the lens was still soft and all could not be removed so I irrigated with normal salt solution my anterior chamber. The eye subsided and in the course of six months there had developed a decided membrane, the remains of capsule with adhesions to the iris, though with a plus eight spherical glass, she could see enough to move around were that the only eye left her.

With these experiences, I decided not further to operate on this eye, but my friend, Dr. Benjamin W. Key, of New York, visiting in Charlotte in November, 1915, saw the case and felt anxious to operate on it, advising a dewecker operation, i. e., at point of choice, he entered his keratome, making a wide incision and then with a pair of dewecker scissors, one blade grasped the tough remains of capsule, made a wide incision through it and the iris below, at this time was the first loss of vitreous from the eye and the eye made a speedy and uneventful recovery from this last procedure, when to my great regret, she reported early in January this year with an acute glaucoma, severe pain, redness and increased tension about 44 mm. Hot applications with the myotic treatment before used relieved the pain and the eye subsided.

Her vision in that eye with the proper

*Read before the North Carolina Medical Association, Durham, N. C.

correcting lens is now about ten-two hundredths and she is, as far as her ability to make a living, no better off and with my experience with this eye, although she has given her consent, Ihesitate to advise or do anything else for the other eye. Time can only decide what I will do in this matter, and I have reported this case with the hope that I may be given valuable suggestions from the experience of others.

My other case which I wil ltry more briefly to report, was Mrs. R. F. S., who first consulted me in October, 1914, age 55.

In this case there were large central spots, which almost entirely filled the interpupillary space when in a moderately lighted room, in certain subdued lights she could see with left eye large type, with right eye she could not see the largest type and in bright sunlight she was practically blind.

Her history was within the past 10 years her eye symptoms had developed. The patient, like my first case, was of a nervous temperament. Having a son in Philadelphia, I suggested that she consult some one in Philadelphia, but meeting her on one occasion in Washington, I suggested that we go around and get Dr. Wilmer to look at the eye, so both Dr. Burke and Dr. Wilmer advised a needling operation, with the removal of the lens as soon afterwards as possible. Had I dreamed of the intense nervous nature of my patient, I think there and then I would have put it up to Drs. Wilmer and Burke, for being away from her family and friends she would have been better off. However to report what happened:

Under the most rigid care I needled the lens on July the 28th, 1915, of the right eye, apparently the only thing of note that happened at the time was the escape of much clear aqueous solution from the point of entrance. The eye was dressed and I may here add Dr. Weeks' method was followed and the patient was operated on in her room to avoid moving her from operating table to bed, as she was a fleshy heavy patient.

On removing the dressing the following morning I found the cornea hazy, a marked conjunctivitis with slight oedema of lids, decidedly the greatest reaction I had ever experienced from a needling operation. I at once thought of an infection so treated it accordingly. I waited until the following morning and on dressing the eye found the conjunctiva swollen, cornea hazy, anterior chamber very deep with a prolapsed iris, so decided that I should try and remove my lens.

I had a great deal of trouble in making my section due to the escape of fluid from the very beginning of the puncture. The fluid was of about the consistency of diluted glycerine of a yellowish tinge. The patient squeezed horribly on attempting to do an iridectomy and almost emptied the eye. The iris was friable and would pull off in attempting to draw it sufficiently out to use scissors. Pressure in an attempt to deliver the lens would get vitreous and not lens. In other words, I was confronted for the first time in my life with a really fluid vitreous. As the last resort I attempted to remove the lens with a hook, but could not, so finished there and then dressing the eye in the usual way. On leaving the operating room it was quite an ordeal to report to anxious friends and relatives the hopelessness of my attempt.

The eye with excellent nursing gradually quieted down and looked as if we would not have to enucleate, but the patient as is her custom when the slightest upset in mind or body began to vomit and was nauseated with severe wretching for three days, only being quieted while under a hypodermic of morphine. On about the 20th day she had perfect light projection and we really felt encouraged as the remains of the lens had arisen into the anterior chamber, but a few days later, I was called in a hurry when she discovered that a black cloud, as she expressed it, had seemingly come over the eye. We drifted along for a week or two more without the slightest ability of the eye to discern light. The patient's nervous system in the meantime had become so upset that I advised taking her out of our city and letting some one else enucleate the eye, which Dr. Burke of Washington did and in frozen section the eye was filled with blood.

This patient as my first case has another eye with another spot. She has been since November under the constant care of a physician and nurse treating her for a complete nervous collapse. Now her nervous symptoms are getting better and her daily question is: "What can they do with my other eye?"

The vitreous with a dilated pupil seems clear as it did in the eye that I operated on—in other words, the eye does not present the symptoms of degeneration that I found at the time of operation, but I cannot conceive of a greater responsibility in the broad fields of human endeavor than that which is put up to an opthalmologist, to operate on the last eye when he has enucleated the other eye, under the circumstances that I have related and I must admit that I have not yet reached that stage of confidence in my own abili-

ty that I would be willing to undertake the responsibility of removing the other lens.

I thank you for your attention and although I have not suggested a single new fact, I have tried honestly to report two of my greatest failures and trust they may here be discussed, for were I given the chance again I should in the light of reported results proceed along different lines—but console myself with the belief they both were unusual eyes.

THE EFFECT OF OPERATIONS FOR UTERINE DISPLACEMENTS ON SUBSEQUENT LABORS.*

By R. D. McMillan, M. D., Red Springs, N. C.

No more interesting subject, nor one more heavily fraught with promise of far-reaching and most beneficial results, has attracted the attention of gynecologists during recent years than the operative treatment and cure of displacements of the uterus. When we stop to consider the free mobility of this organ by the nature of its construction and in consequence of its visceral relations, it has a considerable range of normal mobility and its possible mobility is greater still. It moves up and down with every breath the woman draws. It changes its position with her position, descending in the erect ascending in the supine posture. The fundus is elevated by the distended bladder, depressed by exerting any intra-abdominal pressure as in the act of defecation, etc. Indeed, the normal position of the uterus cannot be indicated by definite lines or specific limitations but a wide departure from the text-book normal position contsitutes a pathological malposition or displacement.

It is not my purpose in a brief presentation of this subject to discuss the various displacements and their treatment. On account of the marked prevalence of retrodisplacements, constituting about one-fifth of all gynecological cases and its relation to the child-bearing woman, I am desirous of laying on this phase the most stress.

Of the many operations in constant use a large number are failures. No one operation already devised or to be devised will cure all sorts and conditions of cases.

As individual as is the patient, so individual may be the patient's displacement and this element of individuality must be seen clearly and weighed accurately in the operator's diagnosis, and the following points should be passed on before determining what shall be the operative proceedure in a given case.

First: What is the age of the patient? If the woman is in child-bearing period no operative proceedure should be undertaken that will cause any interference with a subsequent pregnancy. I have personally witnessed in the clinic of my distinguished friend and colleague, Dr. Kloman of Baltimore, several mal-presentations such as shoulder and trunk, due to the extreme anteflexion of the uterus occurring in women who had previously had their uterus fixed in an attempt to do a ventro-suspension. These patients were hopelessly lost to deliver themselves, or to be delivered with forceps and were relieved only by prompt cesarean section and saved from possible further trouble by a resection of the tubes to prevent future pregnancies. In one instance a rent had already occurred in the uterus following a prolonged attempt on the woman's part to deliver herself.

Second: What is the condition of the pelvic floor? It is absolutely essential that a corrected floor of firm muscular type must accompany any operative proceedure for retrodisplacements when there is a relaxed pelvic floor existing.

Third: What is the position of the cervix and can it be replaced in the hollow of the sacrum?

To my mind of the many operations thus far devised the Baldy-Webster most nearly meets the above stated requirements. This operation is accomplished according to Baldy by three forces:

First: Intra-abdominal pressure on the fundal wall.

Second: The encircling band formed by the round ligaments.

Third: The downward pull of the round ligaments on the uterine cornua.

In this operation the uterus is upheld by the encircling loop of the round ligaments which are sutured to the posterior surface of the body in a line just below the level of the insertion of the utero-ovarian ligaments. The ovaries are also elevated by this operation in the following manner. By the general elevation and anteversion of the uterus and by the rolling forward of the top of the broad ligament, owing to the pull backward of the round ligament as it passes through the hole in the broad ligament.

The technique for operation is as follows: The abdomen is opened in the middle line. The uterus is lifted from its displaced position to a normal position. The appendages are examined and adhesions freed. The utero-sacral ligaments are first shortened by taking a tuck in them behind the uterus. The round liga-

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ments are then picked up and examined to see if they have sufficient strength to perform their function. If so, a piece of tape carried in a blunt needle is placed under each of them about one and one-half inches from their insertion into the uterus. A Kelly clamp is then placed on the free ends of these tapes. A bloodless point is now selected in the broad ligament just under the tube about one inch from the uterus. A hysterectomy forcep is then pushed from behind forward through this space. It is then opened and the two ends of the tape from the corresponding sides are placed in it and the round ligament is pulled back through the opening in the broad ligament. The same is done on the opposite side and then the round ligaments are sutured with number "0" catgut to a point on the posterior wall of the uterus and about a half inch below the insertion of the tubes.

Now as to the failures and the cause of so many failures following round ligament operations.

First: A plain neglect of knowing the anatomy of the female pelvis.

Second: What might be called a passion for originality in which the enthusiastic operator permits himself to be obsessed with his own ideas to the forgetfulness of the work done by the pathfinders in this line of work. To be specific and illustrate the reasons for frequent failures I mention some of the complications and sequalae in some of the well known methods.

Coffey's plication of the round ligaments have been followed by exudates in the utero-vesical space, painful uteri with limited motion, painful coitus. The chief reason, however, is that it brings the entire uterus forward in the pelvis and subseuently the cervix slides up under the symphysis followed by a backward displacement of the fundus.

The Gilliam and Montgomery-Gilliam operations have the defect of leaving artificial pillars extending from the uterus to the abdominal wall, the cervix is not in the hollow o fthe sacrum and the traction on the uterus is not in the normal line of the round ligaments.

Alexander's operation was the first attempted on the round ligaments being done as far back as 1840. Various modifications have been devised from time to time ,all to no avail. The first disadvantage of this operation lies in requiring two incisions and often considerable dissection in situations difficult to protect from infection. When infection occurred, this not only added danger to the patient at once but endangered the future comfort of the patient from the occurrence of hernia through weakened wall resistance. It is more or less of a blind proceedure and consequently applicable only to the cases in fhich the absence of adhesions is evident. The traction of a uterus drawn forward by shortened round ligaments and backward by adhesions to the rectum, makes the condition of the woman a great deal worse than she was before operation.

The chief reasons for not getting good results from the Baldy-Webster operation are unless the ligaments are fastened low enough on the posterior wall. i. e., about half an inch below the insertion of the tubes, there is a tendancy for the ovaries to be carried upward and to be thrown over forward with the rolling forward of the broad ligaments, or if too low the ligaments serve as a loop over which the body may bend thus making a retroflexion instead of a retroversion. Be on your guard not to cause any tortion of the ligaments, as this causes swelling from obstruction of the circulation of the ligaments. Varicosities of the veins of the pampiniform plexus are common to all displacements, especially so with desensus, but if the operation is carefully done, especially in passing the round ligaments through the opening made for them in the broad ligament, this complication will not cause much trouble. Occasionally a thromboplhebitis occurs and may extend from the pelvis to the femoral or saphenous veins.

There is no question that the best results obtained from this operation occur in the type with a small uterus and two well developed round ligaments. It has been a very noticeable fact that in cases of retrodisplacements during the childbearing period the round ligaments are usually well developed in a majority of the cases.

In 437 Baldy-Webster operation performed by Polak and his associates, twenty women have had children subseuent to the operation, twenty-two have aborted making in all forty-two pregnancies from which to draw conclusions. No complication of labor has been recorded, only one delivery has required forceps. It should not be forgotten that the round ligaments are non-striated muscle fibres, and part of the wall of the uterus itself which has been projected forward to the spine of the pubes. The round ligaments undergo hypertrophy during pregnancy and involution following pregnancy. It has not been found that repeated pregnacies have influenced the ultimate results in the cases done according to the Baldy-Webster method.

THE ARTIFICIAL LIFE A CAUSE OF THE INCREASE IN THE DEGENERATIVE DISEASES.*

By J. T. J. Battle, M. D., Greensboro, N. C.

The artificial life, as it will be construed in this paper, means the use of anything which is not essential to the development of the physical man, and the best use of the faculties after development.

It is not intended that the most simple food should be selected and strictly adhered to, but that the appetite should be gratified whenever it does not call for anything that is known to be in any degree harmful. Good food fixed in a variety of palatable ways is not only good to look upon, but its pleasant odor and its delicious taste really make the mouth water, and thus increase the saliva to aid in its digestion. Every meal should be so prepared as to appeal to the ocular, olfactory and gustatory nerves, and in this way appeal to the organs of digestion rather than having to resort to supposed stimulants to aid digestion.

The man who is fully developed and should be in a position to digest what he eats, but is a tobacco habitue, thinks, and with some truth, that his digestion will not be so good without his pipe, cigar or cigarette. As his digestive organs have become habituated to this stimulant, it is true that it is needed at this stage, so that after a meal his digestive organs are below par and they must be whipped with the stimulus that he can absorb from the tobacco smoke. While tobacco is mildly stimulating, soon the depressing influence comes on, the narcotic effect assumes control, and the man sinks a little deeper in his chair, and whiles away the time in a habit which is more or less harmful to himself and of no good to anyone else.

Tobacco smoke contains an appreciable quantity of pyridine, nicotine and furfurol, and smaller quantities of hydrocyanic acid and ammonia, and large amounts of carbonic acid. Furfurol has been shown to stimulate the secretion of the adrenalin glands; this at first raises the blood pressure, and the secondary effect is to lower it. Adrenalin has been shown to aggravate the symptoms of cardio-vascular diseases, and when given to an animal in excessive doses is said to produce lesions similar to arterio-sclerosis.

The poisonous effect of nicotine is well known, and fifty per cent. of what was originally in the tobacco goes into the smoke. The claim that smokers and chewers do not contract disease as readily as others has not been proven, as the smoke is not antiseptic, and mold and fungus grow freely in solutions of tobacco of the strength which results from chewing. While the smoke is alkaline in reaction it is not sufficiently so to overcome the acid forming bacteria of the mouth. There is every reason that smokers should have cancer of the mouth more frequently than non-smokers, as cancer is caused by heat, poisons, injuries (which can be brought about by the pipe-stem), over-activity of any of the glands, or chronic irritation. All of these are caused by smoking tobacco. Dr. William Mayo says that from eighty to ninety-five per cent. of cancer of the tip of the tongue, mouth and lips is caused by smoking.

The arthritic and rheumatic conditions are aggravated by tobacco, an over-use of which is often directly responsible for the symptoms, and we know that amaurosis is sometimes brought about by its excessive use.

That alcohol does more harm than good seems to be a conceded fact. It is the belief of the majority of the people, certainly in the Southern States, that this is the case; they have expressed their views at the ballot box, affirming this belief. This belief of the people in general is confirmed by the hospital experiences with inebriates and alcoholics, and it is thoroughly demonstrated in the laboratory that alcohol is not a food, as was once thought, that it is first a stimulant and then a narcotic. While it causes a subjective sensation of greater efficiency, it is fallacious, as experiments have proven the contrary; while the greater part of it taken into the body is oxydized, yet it does not repair nor rebuild tissue. It depresses the vital functions, and the one who uses it goes into any form of sickness or surgical operation unprepared for the ordeal, and more readily succumbs than any other class of patients.

In this strenuous life, it is too often the case that men and women, wishing to keep step with the rapid-moving throng, whip themselves into line with this, and they are able to keep up for only a short time, as the result is always disappointing; and when the habit is formed they not only drop out of the line of the progressive march, but have contracted a habit which they cannot break. It is a question of a short time until they are more or less incapacitated, having an hypertrophied heart, an atrophied liver, diseased kidneys, and chronic gastritis, and for years they may go on suffering, eking

*Read before the North Carolina Medical Society, Durham, N. C., April 19, 1916.

out a miserable existence. It is, however, useless to unfold the picture to an intelligent profession; yet too many of our confreres have given way to the subtle influence of alcohol, and our sanitariums have too many M. D.'s as patients. While they may be relieved, yet the degenerative diseases have set in, and the mortality is increasing at an alarming rate in the middle period of life.

Not only the alcohol itself does so much harm, but the deluded individual who takes a glass of beer, or wine, or some preparation of alcohol for his stomach's sake, to give him an appetite, or to aid digestion ,on account of its benumbing influence on the sensory nerves of the stomach is unconscious of an overloaded stomach or an undigested meal; in this way the partially digested food is taken into the circulation, and the eliminative organs, particularly the kidneys, have to bear the brunt of carrying off this excess of partially digested compounds which in some instances are toxic. This not only sets up irritation and finally disease in the kidneys, but circulating in the system it affects the other organs, causing first irritation and finally the degenerative diseases.

As proof of the foregoing, insurance companies have adduced some incontrovertible evidence. After investigating thousands of cases where alcohol was used, it was demonstrated that one glass of whiskey or two glasses of beer a day caused an excess mortality of eighteen per cent.; where more than one glass of whiskey or two glasses of beer were taken daily, the mortality was eighty-six per cent. in excess. In these classes Bright's Disease, pneumonia and suicide were more than the normal.

A word as to the milder stimulants, which in turn too often lead to the use of the stronger. The constant user of the soda-fountain drinks is under the control of a habit which is hard to break from, and while absolutely no good is experienced from these, yet being stimulating enough so that one glass calls for another it evidently has its effect upon the nervous system, consequently causes a disturbance in its functioning power.

It is a very simple and easy task in a few hours to pick out among the girls, boys and adults of any town those who have contracted or are contracting the caffeine habit. It is a long step in the direction of stronger stimulants. Not only is the present generation's efficiency curtailed, but the coming generation is undoubtedly born with degeneracy of greater or less degree, either in the physical or mental or nervous systems.

It might seem superfluous to speak of the use of drugs to an association of doctors; yet the potent fact that so many have succumbed to their use is sufficient excuse. An unfortunate circumstance connected with the practitioner who is addicted to the use of a drug is that he so often gives it to patients unnecessarily, and thus causes others to fall into this habit. Unlike the doctor who takes it himself, they are confirmed habitues before they are aware of their condition, and future immunity is exceedingly rare.

Numbers of people are drinking great quantities of water daily, many times more than the system calls for; and as the heart in its normal work is doing over one hundred tons of work per day, every gallon of water taken calls upon the heart to do additional work. This the heart responds to by undergoing hypertrophy, and the excess water drinker, if he continues, will have heart trouble, and if any arterial disease already exists it will be decidedly hurtful. His kidneys have also been called upon to do extra work; and as it has been demonstrated that overwork causes degeneration, there is a possibility of injuring the kidneys. A generous amount of water is good, but too much is harmful.

Over-indulgence at the table is responsible for the heavyweights. In this class of people statistics show that those who are forty pounds or more over the average weight have a longevity four years below the expected. Diabetes, apoplexy, nephritis and heart disease are largely responsible for this decrease. Over-eating and indulgence in the extremes of heat and cold rapidly following each other are no doubt irritating to the stomach, and too often the cause of cancers. Hot coffee when brought to us at the table must be taken regardless of the temperature, for society demands that the old way of pouring it out in the saucer is not elegant manners. To do so would be a compound comminuted fracture of the laws of etiquette, and it must be taken hot even if it does cause cancer of the stomach.

Indigestion and constipation are doubtless responsible for cardio-vascular and renal changes. These can be produced either by disintegration of the food by the stomach and intestinal juices or by the intestinal bacteria or by the toxins excreted by the bacteria.

During the past ten years the death rate from cirrhosis of the liver has increased fourteen and three-tenths per cent., Bright's disease eighteen and one-tenth per cent., apoplexy eighteen and eight-tenths per cent., organic disease of the heart thirty-nine and three-tenths per

cent., diabetes sixty per cent., and disease of the arteries three hundred ninety-six and three-tenths per cent.

Overwork and worry, in one class to provide the necessities of life, and in another to possess the luxuries, are responsible for a tremendous toll in degenerative diseases and premature senility. While the span of life is being lengthened by controlling the preventable diseases, yet by correct living we can add in a few generations fifteen years more of longevity, and give to the individual a greater mental and physical efficiency. It is an established fact that moral, intellectual and spiritual growth will improve the physical ,and wherever you find mental and moral defects there you find physical inferiority. Our present state of efficiency needs improving. For instance, if you take one hundred average healthy men at age twenty-five, in forty years, or at the age of sixty-five, thirty-six will be dead, one will be rich, four wealthy, and five will be supporting themselves, while fifty-four will be dependent upon relatives or charity.

We are under moral and economic obligations to the future generations that they shall inherit stronger constitutions and greater mental capabilities. Constitutional inferiority may be the basis of all diseases.

In conclusion, if we would improve the coming generations, it is our duty to avoid the excesses of all kinds, as excess in the ancestor is responsible for the stigmata of degeneration in the offspring.

"SUBMUCOUS RESECTION OF THE NASAL SEPTUM."*

By H. W. Carter, M. D., Washington, N. C.

This operation is performed for the relief of Nasal Obstruction when caused by deflection of the Septum. In many instances, deviation of the Septum is of traumatic origin and in these cases as a rule, only the Cartilaginous portion is involved, the bony part being protected by the nasal bones.

More frequently the deformity is due to maldevelopment, the perpendicular plate of the Ethmoid bone and the Vomer, as well as the Cartilaginous Septum, being deviated. When the Vomer is affected, we have what is commonly termed the ridge, which obstructs the inferior meatus and sometimes impinges upon the inferior turbinate, causing congestion and swelling of that body. Deflection of the perpendicular plate of the Ethmoid is a more serious condition, the convex side of the deviation impinging upon the middle turbinate body and obstructing the ventilation and drainage of the superior meatus and the accessory sinuses of the nose. The pressure thus exerted causes congestion of the parts, the ostei of the sinuses become closed from swelling of the mucosa and pressure of the middle turbinate, the secretions are retained and decompose, and inflection taking place, we have suppurative sinusitis.

The Frontal sinus, the Anterior ethmoid cells and the Antrum of Highmore all drain into an area not more than one half inch in diameter, which is guarded by the middle turbinate bone and which is called the "Vicious Circle" of the nose.

By removing the obstruction in this area by submucuous resection of the deviated bony plate of the Ethmoid, free drainage and ventilation is secured and sinus disease frequently cured without resorting to more radical measures.

The operation is not indicated, unless the deviation of the septum is great enough to obstruct Nasal respiration or block the drainage from the sinuses or interfere with the functions of the turbinal bodies.

I would mention one exception to this rule, that in which, occasionally, such a large volume of air is breathed through the side of the nose on which the concavity exists, as to dry up the secretions and cause an atrophic condition of the mucous membrane. In these cases the operation equalizes the air space on the two sides of the septum and stops the atrophic process. Nearly every operator of experience develops his own technique, and many valuable instruments have been devised for use in this delicate and tedious operation.

Some surgeons place the patient in a reclining position, and Ballenger always begins the operation by making his incision on the left side, using powdered cocaine instead of a solution.

I prefer to have the patient seated on a chair with the head supported by a properly adjusted head rest.

The nose is sprayed with an alkaline antiseptic cleansing solution any any hair in the anterior nares is trimmed away with scissors.

With small pledgets of cotton wound on applicators, the entire surface of the septum on both sides is alternately painted at intervals of two or three minutes, with a ten per cent. solution of cocaine and a one to one thousand solution of Adrenalin Chloride, being careful

*Read before the North Carolina Medical Association, Durham, N. C., April 19, 1916.

with each application to squeeze out of the cotton any excess of solution. In ten or fifteen minutes Anaesthesia is complete and the operation may be performed without pain.

It is begun by making an incision on the side of the greatest convexity, a little posterior to the anterior end of the Cartilaginous septum and extending from the roof to the floor of the nose. A little experience will enable one to operate with almost equal skill on either side. The incision should extend through the mucous membrane and perichrondrium down to the Cartilage.

Hemorrhage may be troublesome, but as a rule is easily controlled by sponging with cotton wound applicators, using a little adrenalin if necessary.

The separation of the membrane should be started with a small sharp elevator. If the incision has included the perichrondrium, the elevation of the membrane will be comparatively easy and will disclose the white glistening surface of the Cartilage.

After the elevation has been well started, the membrane may be more rapidly freed by using large blunt elevators. The mucoperichrondrium and periosteum covering the entire deviation should be carefully separated.

In making the incision through the Cartilage, it is necessary to exercise great care to avoid cutting through the mucous membrane on the other side.

Should such an accident occur, it is better to postpone the operation, because further manipulation will enlarge the opening, and after healing, the septum will be left with a permanent perforation.

Specially devised knives, with guards to limit the depth of the incision, have been used to avoid injuring the opposite membrane, McCoy's having an adjustable blade, being one of the most popular.

I prefer to use Freer's sub-mucous knife, and to depend upon the finger placed against the other side of the septum, for protection of the muco-perichrondrium.

By cutting cautiously the rounded blade of the knife is felt as soon as it emerges through the Cartilage, before doing any damage to the adjoining membrane.

The incision through the Cartilage should correspond in length to the original incision through the muco-perichrondrium. In beginning the elevation of the membrane of the other side, it is better to use a small dull Freer elevator, but if adhesions are present, better results may be obtained with Abraham's sharp elevator. The point of the instrument should be carefully directed against the septum and away from the membrane to avoid perforation. As soon as the elevation is well started, more rapid progress may be made, by substituting large blunt elevators, with which the membrane over the entire deviated portion of the septum is separated. It is sometimes very difficult to separate the membrane over large spurs and ridges and in doing so a perforation may occur.

This delays healing but otherwise does little harm, unless there is a similar one opposite to it on the other side, making a hole through the septum.

The next step in the operation is the removal of the deviated Cartilaginous and bony septum.

A long Myles' submucous speculum is introduced, one blade passing through the incision in the cartilage. By separating the two blades, the muco-perichrondrial pouch is stretched and the septum exposed to view.

Using a Ballenger swivel knife, the cartilage is repidly removed in one piece.

With a few bites of a suitable bone cutting forceps, as the Ballenger-Foster or McCoys, the deviated portion of the bony plate of the Ethmoid is removed. Great pains should be taken to remove any deviated bone opposite the middle turbinate, which may encroach upon this body and interfere with the ventilation and drainage of the superior meatus and accessory sinuses.

The Cartilage should also be removed close to the roof of the nose, as it may afterward swing to one side and cause partial obstruction.

The removal of the deviated Vomer or so called ridge of the septum is very difficult and is often imperfectly done, thus robbing the operation of a good result.

For this purpose a downward bone cutting forceps, as McCoy's or Hurd's, may be used, and if it is not practicable to remove the entire ridge with forceps, it may be completed with Hajek's gouge and a mallet, being particular to leave the septum smooth and straight near the floor of the nose.

The muco-perichrondrial pouch is now carefully inspected, the long submucous speculum removed, and a short one inserted for further examination. With a cotton wound applicator, the membranes are carefully placed in juxtaposition, when, if the operation has been well performed, the septum will fall perpendicularly from the roof to the floor of the nose. A dressing is applied for the twofold purpose of holding the membranes

in apposition until healing takes place and to prevent the formation of a blood clot in the muco-perichrondrial pouch.

Some operators use the Simpson-Bernay nasal splints, but I prefer the following dressing. Introducing the long Myles' speculum on the side of the incision, with small nasal dressing forceps a long strip of gauze, one inch wide, smeared with sterile vaseline, is lightly packed into the nasal chamber in such a manner as to hold the membranes together over their entire surfaces.

The speculum is then withdrawn and the other side similarly but more lightly packed, after which small pledgets of absorbent cotton are placed in each anterior nares. There is considerable oozing of blood and serum the first twenty-four hours after the operation, necessitating frequent changes of the cotton in the anterior nares.

There is usually some swelling of the nose and the patient may complain of pain, which is quickly relieved by a small dose of codeine.

The gauze is removed in forty-eight hours, the nose sprayed with an alkaline cleansing solution and fresh cotton placed in the anterior nares.

Healing usually takes place in from three to ten days. A haematoma will sometimes form in spite of all precautions, but will absorb if it does not become infected.

When detected it is best to make an incision in the membrane and if infection takes place to wash out the sac.

According to most authorities, the Cartilage removed is replaced by dense fibrous tissue, but Freer claims that it reforms, especially in the young.

When indicated and properly performed, submucous resection of the nasal septum yields brilliant results.

"Elixir Saloform Comp., Flexner." Contains 20 per cent. Alcohol. An efficient remedy for Rheumatism, Gout, Cystitis and Uric Acid Solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. (See page XIV this issue.)

More Than A Coincidence.

It was more than a coincidence that thousands of physicians stated in response to a recent inquiry that one of their most highly prized drugs was cactus. A few doctors might have so reported and the fact be attributed to personal prejudice, but when the same is vouchsafed by thousands of earnest practitioners, it must be believed that their verdict was based on actual observation and clinical experience.

There can be no doubt that Cactina Pillets fill a definite place in the management of cardiac disorders. No claim is made that these are to supersede the more powerful cardiac drugs, when these are properly indicated, but when it is desired to support and sustain the heart and strengthen and regulate its action, Cactina Pillets will not disappoint. Thus a great many physicians have grown to look on Cactina Pillets as one of the safest and most satisfactory cardiac tonics at their command. One to two Cactina Pillets every three or four hours will be found excellent—for example, for relieving the so-called "tobacco heart."

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page XIV this issue.)

"I used the samples of Tongaline Liquid and Tongaline & Lithia Tablets for my wife, who was suffering from a severe attack of the grippe, with such success thaat she made a prompt and thorough recovery."

Hydrotherapeutic Alkalescence.

We sometimes wonder if the several advantages of a scientifically constructed formula in an artificial mineral water over the complex analyses of natural mineral waters are appreciated as thoroughly by the general practician as the specialist in hydrotherapy. Many of the natural spring waters present a shotgun formula of multiple constituents governed by various contraindications; the presence of salts of the non-physiological metals; the depletive action of the highly laxative saline waters; the limited field of those rich in iron or sulphur; all reasons for careful consideration, as these mineral constituents are drugs, purely and simply, with their individual drug actions. However, success, crowning a period of three years experimental work, has produced a rational alkalinizing compound, based on the structural salts of the body metals, palatable to an amazing degree in view of its high alkalinity:—distilled, carbonated water, carrying the KALAK formula. The calcium content, for instance occurs in solution over 100 per cent. greater than ever before accomplished. Too, the ingredients, of reagent purity, approximate their correct physio-

logic proportion, and their appropriation by the blood stream is prompt and complete, with none other than a diuresis resulting. Designed peculiarity to rapidly alkalinize abnormally acid secretions in true acidosis, and the several types of acid toxemias grouped under pregnancies, alcoholic nephritis, gout and rheumatism, KALAK has selected a truly opportune moment for its advent.

A half dozen quarts, literature and a set of KALAK "INDICATORS" with which to determine the DEGREE OR URINARY ACIDITY will be sent to any physician at his request. Address THE KALAK WATER COMPANY OF N. Y., 19 BUSH TERMINAL BROOKLYN, N. Y.

Cod Liver Oil for Children.

Owing to its very acceptable character Cord. Ext. 01. Morrhuae Comp. (Hagee) is especially adapted for use as a reconstructive in children. Either as a tissue-maker in debilitated conditions resulting from impaired metabolism or consequent upon an acute illness, Cord. Ext. 01. Morrhuae Comp. (Hagee) will prove of marked advantage. Its therapeutic powers are added to by its palatability. It may be continued over long periods without causing gastric distress, nor does the hot weather make its use more difficult.

Salvarsan and Neosalvarsan Received.

The Farbwerke-Hoechst Company, of New York, announces that it has received a very large shipment of Salvarsan 0.6 gram and Neosalvarsan 0.9 gram from Germany, and that this shipment has come to this country upon the explicit orders of Kaiser Wilhelm.

It will be sold only to physicians and hospitals at the price which has been in vogue heretofore, namely, $4.50 per ampule, and there is a sufficient supply on hand to enable medical men to obtain enough for their entire necessities.

During the time that Salvarsan was scarce, many imitations sprang up, some of which were very toxic and caused an immense amount of harm to the unfortunate individuals upon whom they were used.

The importers are seeking to impress the medical profession with the fact that the only legitimate Salvarsan and Neosalvarsan on the market can be obtained from them only.

"I prescribed Tongaline for two cases of tonsillitis, after all other treatment had failed, with such success that both made a rapid recovery."

Sleeplessness.

There can be no denying the fact that for all round use, the bromides still hold first place in the rational treatment of insomnia. Of course, especial care should be used in selecting the particular bromides to be employed, as the results accomplished obviously depend to a large extent on their purity and quality. This is well shown by the notable therapeutic utility of Peacock's Bromides, a preparation of bromide salts that for many years has been the first remedy turned to by countless discriminating physicians whenever a sedative or hypnotic has been needed. Particularly in overcoming the sleeplessness due to nervous excitation, neurasthenia, alcoholism, prolonged worry, hysteria, and so on, have Peacock's Bromides been found of never failing efficiency, with gratifying freedom from gastric irritation, and the all too evident drawbacks that so often characterize other hypnotic agents.

Campetrodin.

This preparation is an oleaginous solution of Iodine in Camphor. Soothing, penetrating, powerful antiseptic, local analgesic, alterative, ideal surgical dressing.

The great therapeutic value of Campetrodin is attributed to the fortunate properties of its vehicle, which permits the remedy to enter the tissues and blood stream as it were, by osmosis, bringing about results immediate and satisfactory. Wherever the therapeutic properties of Iodine are indicated, Campetrodin can be relied upon, minus the disadvantage of crude Iodine. It relieves local pain promptly without local iritation; on the contrary, it can be applied to denuded or burned surfaces as an anodyne.

As an antiseptic dressing it is equal to any, and without the dangers of most of them. In all cases where prompt absorption or lymphatic stimulation is desired, it penetrates the tissues almost as soon as it is applied to the skin.

Campetrodin (Double Strength) is especially valuable in reducing swollen glands, and relieving obstinate, deep-seated rheumatic and neuralgic pains.

Both strengths supplied on prescription in one, three, and eight ounce bottles.

On request, the manufacturers, A. H. Robins Company, Richmond, Va. will be glad to send samples for clinical test.

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EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

WORKMEN'S COMPENSATION AND TUBERCULOSIS.

That modern judicial procedures in our courts are tending rapidly to relegate to the realm of the literary garret the oft-noted suggestion that the court and the law is too often a medley of ancient axioms saturated with the hoary prejudice of long past generations, has received fresh demonstration in the opinion recently handed down by the New York State Supreme Court in which it was held that the "workmen's compensation law" of that state entitled a claimant to receive compensation for tuberculosis following exposure while at labor in the employ of the defendant employer.

The case, Rist vs. Larkin & Sangster et al, was an action brought under the New York workmen's compensation law which provides "for compensation for accidental injuries arising out of and in the course of employment and such disease or infection as may naturally and unavoidably result therefrom." The plaintiff it appears was a workman employed in operating a crane on the Mohawk River, and on occasion, the framework of the structure giving way, to save himself from possible danger, he jumped into the shallow waters of the river and waded ashore. Not being accustomed to such exposures, he "contracted a heavy cold and pleurisy which developed into pulmonary tuberculosis, by reason of which he continues disabled." The state commission awarded damages to the plaintiff, and on appeal, the higher court affirmed.

Is it possible that corporations giving employment to large numbers of men will eventually find it necessary for their protection to have all employees when applying for service, to undergo strict medical examinations to eliminate even the possibilities of a latent tubercular focus (implanted in early infancy, perhaps many years previous) developing into activity? The ruling of the court indicates the disposition of modern law expounders to endeavor to keep pace in part at least, to an extent, with scientific advance, but it also specially emphasizes the oldentime thought as to a little learning being a dangerous thing. The court's opinion does not indicate whether or not, due consideration was given to the subject of childhood infection or to the possibility of a previously existent tuberculosis ,all of which would be interesting to know, for if courts of justice are to treat questions of fact involving modern scientific theories in the full light of science every possible development of medical advance is worthy and deserving of careful consideration.

J. H. W.

DR. PAUL PAQUIN.

The recent death of Dr. Paul Paquin, health officer of Kansas City, Mo., in that city after a short illness recalls his residence for fifteen years in Asheville, N. C., and his activities in both the Buncombe County and North Carolina State Medical Societies. Of pleasing address, quick, witty and wise, sprightly and vivacious, well informed on the current advance in medicine and collateral sciences as well as literature and world affairs in general, Paul Paquin was a most companionable man, and in his going the profession of medicine sustains a distinct loss. One of his last labors was the preparation of a pamphlet of a couple of dozen pages, copiously illustrated, for the use of the public health workers of Kansas City. Without criticism of similar endeavors, it may truthfully be declared to be one of the most instructive pieces of health literature ever prepared, reflecting credit on its capable author and the progressive municipality distributing it among its citizens. Since Dr. Paquin's death, the publishers have offered it for sale to other health boards and the public, and its circulation will doubtless reach into the hundreds of thousands to a figure little dreamed of by the author.

J. H. W.

NORTH CAROLINA STATE HEALTH OFFICERS' ASSOCIATION.

The sixth annual session of this Association convened at Durham Monday, May 16, and was welcomed by Dr. J. M. Manning, Chairman of the Durham County Board of Health. The response was delivered by Dr. B. W. Page of Lumberton, and the President's address by Dr. Dan E. Sevier of Asheville, Whole Time County Health Officer of Buncombe County. Almost every county health officer, members of the State Board of Health, and other physicians interested in public health were present, and the session in all respects, a most successful one.

The President's address was a plea for greater uniformity in public health practice in the various counties of the State. Dr. Sevier also urged the duty of physicians in securing desired betterments of public health legislation. Dr. Sevier also said in part: "The most essential step in

public health work and the fountain head of health lies in the establishment of a full time health officer in each county of the State. This would substantially reduce the death rate within a very short time, and place North Carolina first along public health lines. Better school buildings, thoroughly equipped with the necessary modern school appliances should continue to be one of our aims. The sanitary environment of rural schools and their surroundings are far from what they should be, having springs which overflow, open wells unprotected, and with far too few properly arranged surface closets. The persistence of such conditions is a shame and a disgrace to a civilized people. A constant gain in public health work has been noted in the past year, due, in large part, to the efforts of whole time health officers under the supervision of that tireless health worker, Dr. Rankin, Secretary of the State Board of Health."

The report of Secretary-Treasurer, G. M. Cooper of Raleigh, showed the affairs of the Association to be in good condition financially.

Among a number of interesting papers read was that of Dr. T. M. Edgerton of Greenville on "Present Standardization of County Health Work ,and Dr. D. E. Absher of Henderson on "Some Methods of County Health Work." Dr. L. B. McBrayer of the Sanatorium read a paper on "The Public Health Nurse," and Dr. Cyrus Thompson of Jacksonville on "The Physician and Public Health."

Dr. Rankin, in discussing the whole time county health officer work, expressed the opinion that one of the greatest defects in the whole time county health officer work is the medical practice and care of charity cases with which the officer is now burdened, and it was the general concensus of opinion among those present that the whole time county health office should be most concerned with the prevention of diseases throughout the county at large rather than the professional care of the inmates of the home and jail.

Dr. Way of the State Board of Health discussed the advantages of local county hospitals, and at his instance, the Association adopted the following resolution:

Resolved, by the North Carolina State Health Officers' Association, in the sixth regular annual session assembled, that it is our unanimous opinion that there should be established in each county in this State a local county hospital as a necessary and vital part of a proper public health policy.

In presenting this resolution, Dr. Way insisted that it was the manifest duty of every county to care for its sick and afflicted as it was to provide for the criminal classes of the aged and infirm.

Illustrated motion picture lectures were given by Dr. J. C. Braswell and Mr. Warren H. Booker.

The following officers were elected for the ensuing year: Dr. Arch Cheatam, Durham, President; Dr. G. M. Cooper, Raleigh, Secretary-Treasurer.

The 1917 session will be held at Asheville on the day preceding that of the opening of the State Medical Society.

USE AND ABUSE.

The lower animals by instinct choose the food suited to their needs but man only prepares his food. His digestive system proves his claim to a wide range of diet. Man is an herbiverous, carniverous and omniverous animal, and he is guided by intelligent judgment in the selection of food and drink.

Man is a reasonable creature but hefrequently is very unreasonable. The lower animal world will partake of nothing, by instinct, that will be harmful. But God-like man will deliberately take into his system various poisons—alcoholic liquors for instance. Properly used they are valuable as a medicine. The profession continues to teach that alcohol is a medicine, but if abused, it is a poison.

In certain physical states it is as necessary as quinine and opium. In states of shock and great prostration, where the nerve centers are crushed, there is absolutely no agent superior to it.

The same may be said in cases of poison by reptiles and insects. Such cases are endangered by an active toxic agent introduced into the system. It is then the poison should be quickly attacked, and nothing equals alcohol for the purpose. Its value, as has been suggested, may be its narcotic influence over the system and not any special influence over the poison. In these cases alcohol does away with the fear which, in my opinion, is more valuable than either its narcotic effect or its effect on the poison that has just been introduced into the system.

In the terrible injuries on the battlefield, where the shock is fearful, there is nothing that can take the place of an alcoholic stimulant.

Finally, the teaching of scientific medicine is that alcohol is a means of cure of great value but that the limits of its profitable use are quite circumscribed; that in states of health it is no food, nor is it an allowable luxury and when used as such it is a poison. The practice of medicine is made up of those who try to cure

the sick—and they try to do so honestly and intelligently. But unfortunately in its ranks are charlatans through whose false teaching and practice the people have been greatly, and often willingly misled by the same, and the alcoholic poisoning has been encouraged and promoted by such.

On the other hand there are physicians who only use it when absolutely necessary. They only prescribe it in its proper place and in the proper quantity. Because of the abuse of a valuable medicine by men regardless of the proper use, the conscientious physicians are made odious to fanatics on temperance. F.

THE BOLIVAR COUNTY, MISS., METHOD OF COMBATTING MALARIA.

This plan is an interesting illustration of advanced intensive scientific public health methods, and if it succeeds is a demonstration worthy of its promoters, and should it fail, it can but have been a step in a healthful direction. The plan briefly is this: The population of the county is rural almost entirely, and numbers a little more than 6,000. In February, 1916, on the request of the Mississippi State Board of Health, and the International Health Commission, every man, woman and child, save six, accepted a free blood examination. Careful records were kept, and when concluded, every one of the malarial parasite carriers were asked to take one ten-grain dose of quinine each night during a month, the medicine being furnished. This was concluded during the month of March since which time there have been follow-up examinations for the purpose of ascertaining the finished results of the quinine administration which contemplates farther use of the drug with carriers. If successful it is proposed to extend the plan to the entire Delta district. W.

HISTORICAL REVIEW OF TYPHOID PROPHYLAXIS.

The very early history of vaccine therapy is, of course, unknown. Its antiquity and early practice in some form or another leads us back to a primeval forest, where an untutored sire sat and contemplated the advisability of inoculating living tissue with some substance for the express purpose of inhibiting the dire effects of poisoned darts, snake venom or, perchance, malignant disease.

The fundamental principles of germ disease was known and taught two thousand years ago. Since Jesty's day, 1774, the record is full and complete. In 1850 Darvine discovered the anthrax bacilli; in 1863 he proclaimed and demonstrated that this bacillus was the materies morbi o fthe disease. Among the small number of scientific men who had accepted the germ theory so late as 1875 was Lister, who made the year historical by introducing antiseptics.

After Weigert introduced the anilin dyes in 1877 the microscope successively revealed the presence of organisms in one disease after another ,and added such irrefutable proof that certain organisms were the exciting cause of characteristic lesions and symptoms, that it was impossible to longer doubt that bacteria were the cause of many diseases. In 1879 Pastur found that attenuated bacilli were capable of inducing immunity. And in 1880 Eberth discovered the bacillus of typhoid fever.

In 1886 Frankel and Simonds succeeded in immunizing rabbits against the fatal effects of large doses of typhoid bacilli, and suggested the use of sterilized cultures for the immunization of men. The first actual immunization of men for the purpose of protecting them against typhoid infection was done in 1896. Prophylactic inoculation was introduced into the British army in India, in 1898, with good and encouraging results; but at the close of the Boer war in 1902, after about 400,000 doses of vaccine were administered to approximately 100,000 men, the practice was discontinued from lack of agreement among the medical officers as to its utility. Anti-typhoid vaccine was next used extensively in the German army during the Hereros campaign, from 1904 to 1907, with a decided reduction in morbidity, for which the vaccine was given much credit.

As a prophylactic measure against typhoid fever, typhoid vaccine has now passed the experimental and debatable stage. It has been employed in millions of cases, and has attained an estimated record of success in 97 per cent. of instances. But whatever may be the exact position of typhoid vaccine as a prophylactic agent, the absolute need and indispensability of hygiene and sanitation as essential elements in the prevention of typhoid fever must not be forgotten.

Well may the civilized world rejoice in its present security against its common enemy, but the civilized world should know that a careful review of the history of vaccine therapy will show that the brilliant achievement in typhoid prophylaxis is wholly the result of energy spent in the right way, and not, in any event, as it sometimes seems and is often stated, the result of luck, chance or accident.

THE PRESENT STATUS OF TYPHOID VACCINE IN THE TREATMENT OF TYPHOID FEVER.

Along with the energy spent in developing the prophylactic properties of typhoid vaccine, a great deal of energy has been and is being spent in an effort to either prove or disprove the value of typhoid vaccine in the treatment of typhoid fever. As a result, vaccines of various makes and modifications have been employed in every conceivable way, in many cases, and under all sorts of conditions; but the brilliant results achieved in typhoid prophylaxis has not yet been attained in the field of therapeutics.

Recorded clinical cases are not overabundant; as late as 1915 a total of less than two thousand reported cases were collected. The people who read medical literature are more or less familiar with the conflicting conclusions of authors. The whole matter is yet in a state of ferment, the facts are still obscure and the conclusions of writers must be taken at face value.

The present status of typhoid vaccine therapy is aptly illustrated by abstracts from two letters, of recent date, received in private correspondence. In one of the letters the Secretary of a State Board of Health says: Don't try to treat a case of typhoid fever with bacterins. Vaccination with bacterins will prevent typhoid fever but it has no curative effect. So far no serum has been found which is at all successful or to be recommended for treating typhoid fever. Like the tetanus serum it must be injected before the disease appears. In other words, immunize with both these remedies and they work well but for cure they have very little or no value. The other letter, from a member of the teaching faculty, reads: The present status of vaccine therapy in typhoid is not exactly determined. Personally I have used these preparations in a large number of cases and am an enthusiastic believer in them. I have recently collected over a thousand cases reported by different writers and the results thus noted have been entirely in accordance with my own opinions. I believe that when properly used the duration of fever in the average case is lessened, the convalescence is hastened, and complications and sequelae retarded or prevented. The mortality also seems to be less. More recently sensitized vaccines have been used and the results obtained from these have been apparently more notable even than from the original preparations. While holding conflicting views, these writers agree: that as yet nothing definite has been determined.

Since the discovery, that typhoid fever is ultimately a mixed infection is of comparatively recent date, it is not strange if the specific property of typhoid vaccine, if such there be, has not yet been established. As the rose spots appear the bacillus typhosus disappear from the blood. The disease is prolonged and ulcers appear in Pyer's patches as the result of a secondary invasion of other pathogenic microbes. It now appears, according to the specific vaccine theory, that the early stage of typhoid fever must be treated with vaccine prepared from a corresponding strain of bacteria, then each type of invading organism must be detected and identified and its presence combatted by a vaccine prepared from that particular type and strain of germ. In such a case successful treatment would depend upon a high degree of diagnostic skill and a perfect laboratory technique. Should recovery from typhoid fever depend upon such delicate external matters it is quite certain the mortality, especially in private practice, would be exceedingly high. And in the absence of a correct diagnosis only hope and confidence could justify the use of stock mixtures.

With this understanding of the nature of typhoid fever, it is not strange if confusion follows an incomplete diagnosis and the administration of imperfect or incomplete vaccine preparations. The subject involved is of such a technical nature that nothing definite can be expected until a positive diagnosis by laboratory methods is made and a uniform method of treatment is applied in a large number of cases.

While the therapeutic value of typhoid vaccine has not yet been determined, the vast amount of energy spent in the attempt to solve the problem has not been wasted, for a great deal of related knowledge has been established. This knowledge will be useful, not only in solving the typhoid problem, but it will be a large factor in the solution of all other therapeutic problems; and since most of this knowledge comes from the laboratory our hopes must turn to the laboratory for the final answer. In the meantime those who labor in contiguous fields may review the reports of laboratory workers and note the success or failure of each undertaking; and who knows but what some unknown prophet along the wayside may yet indicate the direction or the method by which the answer to vaccine therapy may be found.

EDITORIAL NFWS ITEMS

Johns Hopkins Hygiene School.—The Rockefeller Foundation will establish its School of Hygiene and Public Health in Baltimore in connection with the Johns Hopkins University. Dr. Wm. H. Welch will be director of the school, with Dr. Wm. H. Howell head of the physiological division.

This announcement was made by Dr. Welch at the recent commencement exercises of the Johns Hopkins University. This makes a very valuable addition to this already famous university.

Dr. Glenn Long, of Catawba, N. C., a brother-in-law of the late Dr. T. W. Long, and a very popular young physician, has decided to locate in Newton for the practice of medicine. The Doctor has already many friends in Newton and he will receive a cordial welcome.

Dr. William T. Shipp of Louisville, Ky., it is announced will locate in Newton, N. C., for the practice of medicine and surgery. It is announced that he will be associated with Dr. George W. Shipp, his nephew. It has also been announced that they are interested in the establishment of a sanatorium. They are men of great ability and no doubt could make a hospital of this kind succeed.

Dr. Shipp is a native of Gaston County, and has been practicing medicine in Louisville for about twenty years.

The New Officers of the American Medical Association are: President, Dr. Charles H. Mayo, Rochester, Minn.; first vice-president, Dr. Lewellys F. Barker, Baltimore, Md.; second vice-president, Dr. John Leeming, Chicago, Ill.; third vice-president, Dr. J. Henry Carstens, Detroit, Mich.; fourth vice-president, Dr. George F. Keiper, Lafayette, Ind.; secretary, Dr. Alexander R. Craig, Chicago, Ill.; treasurer, Dr. William Allen Pusey, Chicago, Ill.; chairman of the House of Delegates, Dr. Hubert Work, of Colorado; vice-chairman of House of Delegates, Dr. Dwight H. Murray, New York; Board of Trustees: Dr. A. R. Mitchell, Nebraska; Dr. E. J. McKnight, Connecticut; Dr. Oscar Dowling, Louisiana.

The next meeting will be held in New York City.

Dr. E. H. Cary, of Dallas, Texas, was chosen President of the Texas State Medical Association at the concluding business session of the House of Delegates at Houston, June 10, 1916.

Dallas was unanimously selected as the meeting place for the 1917 convention which convenes in May, 1917.

Other officers were elected as follows: Dr. R. Y. Lacy, First Vice-President, Pittsburg; Dr. Charles R. Johnson, Second Vice-President, Gainesville; Dr. W. L. Brown, Third Vice-President, El Paso; Dr. Holman Taylor, re-elected Secretary, to serve third term of three years, Fort Worth; Dr. W. L. Allison, Treasurer, re-elected, Fort Worth; Dr. John T. Moore, re-elected Chairman of Board of Trustees, to serve five years, Houston; Dr. W. A. King, re-elected member of the Council on Medical Defense, San Antonio; Dr. C. R. Hartsook, re-elected member Board of Councilors from Third District, Wichita Falls; Dr. Chas. S. Venable, member Board of Councilors from Fifth District, San Antonio; Dr. W. N. Wardlaw, re-elected member Board of Councilors from Third District, Corpus Christi; Dr. A. C. Scott, re-elected member Board of Councilors from Twelfth District, Temple; Dr. C. E. Seals, member Board of Councilors from Third District, Daingerfield.

The Southside Virginia Medical Association.—This association held its fifty-third session on June 14th at Norfolk, Va. Dr. H. A. Burke, of Petersburg, the president, was absent and Dr. E. R. Hart, of Suffolk, presided.

Dr. R. L. Raiford, of Sedley, Va., read a paper on "Obstetrics." His paper was discussed freely by the members present.

Dr. D. L. Harrell, of Suffolk, Va., read a paper on "Gastric Ulcer and the Importance of an Early Diagnosis," and Dr. Alex. G. Brown, Jr., of Richmond, Va., on "Modern Treatment of Diabetes," which was illustrated by a number of charts.

Dr. E. R. Hart also read a paper on the "Treatment of Tri-Facial Neuralgia With Alcoholic Injection."

Dr. Hardy, of Farmville, Va., gave an illustrative account of a case of diabetes of an infant of two years, and Dr. O. C. Wright, of Jarratts, Va., reported a case of cancer of the pancreas in connection with Dr. Harrell's paper on gastric ulcers.

The next meeting of this association will be held in Farmville, Va., on the second Tuesday in September. Dr. Hardy will lead the subject for discussion, which will be announced later.

At the conclusion of the evening session Dr. D. L. Harrell, Drs. J. E. and D. L. Rawles, and Dr. E. L. Hart were hosts

to the visiting physicians, the city physicians and dentists and several ladies were present, at a delightful banquet, given at the Nansemond Hotel.

This association is a very important organization, it is composed of the counties of Surry, Sussex, Brunswick, Prince George, Greenville, Dinwiddie, Isle of Wight, Lunenburg, Prince Edward, Amelia, Nottoway, Southampton, Mecklenburg, Nansemond, and the cities of Petersburg and Suffolk.

Officers of the association are as follows: President, Dr. H. A. Burke, Petersburg; first vice-president, Dr. H. M. Snead, South Hill; second vice-president, Dr. F. J. Wright, Blackstone; third vice-president, Dr. T. C. Harriss, Kenbridge; fourth vice-president, Dr. E. W. Young, McKenny, Va.; secretary and aetrsurer, Dr. E. F. Reese, Courtland, Va.

Dr. Albert Anderson.—Some time ago charges were brought against the management of the Raleigh State Hospital, in which Dr. Albert Anderson is superintendent. The investigation of the charges was terminated on June 22nd, the prosecuting attorneys admitted that the charges against Dr. Anderson and the management of the institution were false and without significance. This admission from them at the conclusion of evidence against the defense was a complete vindication for Dr. Anderson.

At the beginning of this investigation the thoughtful people of North Carolina were not anxious about the findings in this case. Dr. Albert Anderson is one of the most prominent physicians in North Carolina, in nervous diseases he is considered one of the most accurate and competent men we have in the South. He is thoughtful and skilled in his relations to his patients, as a director of a hospital similar to his, I imagine that it would be very difficult to find his equal in many of the States.

Dr. Wm. F. Williams, one of the most widely known medical men of Virginia, died on June 14th at the Johnson-Willis Hospital in Richmond, Va. He was forty-six years of age. He graduated from the University of Virginia, receiving the degree of master of arts and later the degree of doctor of medicine. After his graduation he spent one year in Berlin, Vienna, Paris and London studying research work, when he returned he spent one year in New York in a hospital there.

In 1894 Dr. Williams was elected instructor in the Medical College of Virginia ,and two years later he became professor of materia medica in the same institution. On account of ill health he resigned that position in 1905 and went to El Paso, Tex. After several years there he returned and became superintendent of Catawba Sanatorium. He resigned this position in 1911, and for two years was dean of the medical department of the University of Oklahoma.

Dr. Williams was always an active member o fhis local medical societies and his state and national medical societies. The medical profession of Virginia, in the death of Dr. Williams, loses one of its most accomplished medical gentlemen.

Dr. N. A. Orr, a prominent physician, of Belmont, N. C., died suddenly June 10th, at his home at Belmont. He was a brother of Dr. Charles Orr of Asheville. He is also a half brother of Dr. Green Caldwell, of Concord.

Dr. Orr graduated from the University College of Medicine in Richmond, Va., in 1904, the same year he stood his examinations and received his state license to practice medicine. The records show that Dr. Orr stood a very fine examination and was complimented by the board. In 1911 he joined the State Medical Society. Every one who knew Dr. Orr predicted for him a brilliant future. The medical profession of North Carolina, in the death of Dr. Orr, loses one of its most promising members, his death is a great loss not only to his community but to the people of North Carolina.

Dr. Orr was an accomplished professional gentleman, and it was always a pleasure to the writer to confer with him on medical subjects.

Dr. Robert Bennett Bean.—At a recent meeting of the board of visitors of the University of Virginia, Dr. R. B. Bean was appointed professor of anatomy to take charge of the courses in gross anatomy and neurology formerly given by the late Dr. Richard H. Whitehead. Dr. Bean is a native of Botecourt County, Virginia, and was graduated from the Virginia Polytechnic Institute in 1900. After receiving his degree in medicine from the Johns Hopkins University in 1904, he specialized in anatomy and has successively held the following positions: Instructor in Johns Hopkins Medical School, 1904-05; instructor in the University of Michigan, 1905-07; assistant and associate professor in the University of the Philippines, 1907-10; associate professor and professor of gross anatomy, Tulane University, 1910-16. He has made an enviable reputation as a

teacher of anatomy and also as an investigator into the anthropological significance of certain anatomical characters. In addition to numerous contributions to special scientific journals, he is the author of an important book on the "Racial Anatomy of the Philippine Islanders."

He is a Fellow of the American Association for the Advancement of Science, and a member of the American Association of Anatomists, and of the American Anthropological Association.

The Medical Alumni of the University of Virginia on the 12th of June at Charlottesville, Va., met at ten o'clock in the new wing of the Hospital and organized the Medical Alumni Association of the University of Virginia. The following officers were elected: President, Dr. Hugh H. Young, of Johns Hopkins Hospital, Baltimore; Vice-President, Dr. Fielding Taylor of New York City; Secretary and Treasurer, Dr. Thomas V. Williamson, of Norfolk.

A committee was appointed to consider methods of raising funds for a suitable memorial to the late Dr. Walter Reed, a distinguished alumnus of the University who lost his life in the study of yellow fever.

It was decided to hold the next meeting of the Association on Monday of Finals Week, 1917, and on that day there will be a clinical program in the University Hospital. Both faculty and alumni of the University's medical department will contribute to this clinic.

Dr. Thomas Walter Long, of Newton, N. C., died on June 11th at the Hickory Hospital. His death was the result of the fracture of the thigh in his right leg a few days before his death. He did not rally from the shock and his heart failed to bear up under the injury and the anesthetic necessary in setting the bone. The injury was received in stepping backwards from an automobile that was slowing up in front of his residence. Dr. Long was fifty-eight years old and was one of the most highly esteemed medical gentlemen in that section of the State. His death is a great loss to hundreds of people whom he served for many years. He graduated from the University of New York in 1885, a class mate of the editor of this Journal. He was an honored member of his county and state medical societies.

Dr. B. R. Gray, president of the board of physicians operating the Riverside Hospital, Newport News, Va., stated to the board of directors of that hospital that the superintendent and nurses of that institution had resigned at the request of the board. It seems that the managing board, the superintendent of the hospital and the nurses could not agree. Consequently through Dr. Gray the superintendent and nurses lost their positions and an entire new force took charge on June 10th.

Dr. Roy Long, of Monroe, N. C., who recently graduated from the Jefferson Medical College of Philadelphia has received an appointment as interne at the Delaware Hospital, Wilmington, Dela. He assumed his new duties about June 20th. Dr. Long is a bright and promising professional gentleman and no doubt he will make good.

The Eighth District Medical Society held a successful meeting in Winston-Salem, N. C., on June 6th. Greensboro was selected for the next meeting place. Dr. C. W. Banner of that city was elected president and Dr. J. W. Tankersley also of that city, was elected secretary. The most pleasant feature of the meeting was the informal smoker which was held in the Palm Room of the Zingendorf Hotel on Tuesday night. Dr. L. H. Hill, one of the oldest practitioners in this section of the State, added much interest to the meeting in the presentation of a paper on surgery during the Civil War, and at the smoker in the evening enlivened the gathering with a number of violin selections.

Wayne County Doctors Taking Special Lectures. The first lecture to the Wayne County physicians who have registered for the course in post-graduate medicine as outlined and conducted by the State University and the State Board of Health, was given Friday, June 9th, by Dr. Lewis Webb Hill, of Boston, Mass., at the Goldsboro Hospital. Lectures will be given every Friday for the next six weeks. Any parent having a sick child under twelve years of age can take him to the Goldsboro Hospital from eleven to twelve on the day of the lecture and receive for him the benefit offered by the dispensary. Practically all the physicians of Wayne County are taking advantage of this course.

Dr. Thomas J. Pretlow, of Newport News, Va., city health officer, and one of the best known sanitarians in the State died on June 1st a few hours after suffering a stroke of paralysis. He was only thirty-three years old. Dr. Pretlow was first elected health officer of the city in

1908, serving one term until 1910. He again was elected in 1912, serving a second term, and was elected for his third term in 1914. This expired January, 1916. His two greatest achievements as health officer were the reorganization of the health department in 1914 and the installation of the medical inspection in the public schools at this session. He graduated from the Medical College of Virginia in 1906, passed the Board of Examiners of Virginia in 1906 and joined the Virginia State Medical Society in 1908. He was considered a member of considerable value in his state and local societies. His untimely death is a loss to the medical profession of his state and the people that he so faithfully served.

The Rowan County Medical Society has petitioned the county commissioners to provide a tuberculosis sanatorium in Rowan County. A committee appointed by the Association presented the matter to the commissioners. The medical profession of that county has always taken a lively interest in sanitary matters.

Dr. J. A. Lewis, of Richmond, Va., a colored physician, was given a year in the penitentiary by Judge D. C. Richardson in the hustings court on June 2nd. Dr. Lewis had been convicted of issuing fraudulent death certificates to enable parties to collect insurance.

Dr. Lawrence E. Flannagan has been appointed health officer of Charlottesville, Va., to succeed Dr. R. Lindsay Robertson, who resigned to accept a position in the medical department of the U. S. Army. Dr. Flannagan will enter upon the discharge of his duties at once.

Dr. C. E. Lowe has been elected director of health for the city of Spartanburg for a period of twelve months.

Dr. R. A. Davis has been elected health officer for Newport News, Va.

Dr. Thomas Perrin Kennedy, of Union, S. C., died May 21st. The doctor graduated at Tulane University, New Orleans, in 1910. He died a young man, only thirty. Immediately after his graduation he joined the South Carolina Medical Association, and he exhibited every evidence that he would be a valuable member of his state medical association. He was a specialist on diseases of the eye, ear, nose and throat. In his death the South Carolina medical profession has lost a valuable member.

The Colored Medical Association of North Carolina held its annual convention in the city of Wilson on June 20th, 21st, and 22nd. A large number of physicians were in attendance. The public meetings were held in the First Baptist Church (colored) on Tuesday and Wednesday nights. The meetings came to a close on Thursday night with a banquet in the auditorium of the colored graded school building.

Several distinguished speakers were present on the occasion. Dr. W. S. Rankin, secretary of the State Board of Health; Dr. D. H. Hill, of Boston, and Dr. A. M. Curtis, of the Freedmans Hospital, Washington, D. C., were some of the speakers.

Dr. Fred P. Fletcher has been appointed resident physician at the Virginia Hospital by the administrative board to succeed Dr. J. Raymond Gorman. Dr. Gorman will spend several months in the medical department of Harvard University, and will take a postgraduate course before again taking up the practice of medicine.

Dr. Boyce D. Brooker, formerly of Richmond, Va., who was recently indicted for violating the narcotic law in that city, and who forfeited his bond for $2,000.00, it is understood, is now living comfortably in London.

Dr. Joel H. Rieger, formerly of North Carolina, died June 20th in Kansas City, Mo. Dr. Rieger was sixty-isx years old. He has been a very prominent railroad surgeon in Kansas City for many years. He went from North Carolina to Kansas City in 1872. He was born in Beaufort, N. C., and educated at Oxford, N. C., and at the University of Virginia, and subsequently he secured the degree of Doctor of Medicine from the College of Physicians and Surgeons in New York City. Following his graduation, he was on the staff of King's County Hospital in New York City. Within a few years after the doctor located in Kansas City in 1872 he came to be surgeon of all of the railroads running into Kansas City except one. He was also surgeon of the old Kansas City Cable Company and the Sante Fe Employes' Association. From then until the time of his retirement from active practice in 1901 he took care of nearly all of the people hurt in big railroad wrecks within a radius of one hundred and fifty miles of Kansas City, and was even called to Chicago to perform delicate operations.

A great many members of the medical

profession of Eastern North Carolina remember Dr. Rieger well. It is proper to class the doctor as one of the most successful and accomplished physicians that North Carolina has ever produced.

Dr. Louis Loeb has been elected city physician for Newport News, Va.

Dr. R. J. Gilliland, one of the oldest and best known practicing physicians in South Carolina, was stricken with paralysis on June 21st. His condition seems to be very serious.

Dr. H. Stuart McLean has been offered the position of Chief Surgeon to the French Hospital at Juilly, Seine et Marne, to succeed Dr. Robert Bryan who is now in Europe, and will not return until the late fall.

Dr. McLean has been associated with Dr. Bryan at Grace Hospital for some years.

Chief Surgeon of the French Hospital at Juilly has the rank of major in the French army. This appointment, or position, is considered a high honor and affords rare experiences in war surgery.

Dr. Paul Paquin, originally of Asheville, N. C., died at his home in Kansas City, Mo., on June 24th.

Dr. Paquin had been ill for about a month and his death was not unexpected. His friends and acquaintances through newspaper reports knew several weeks ago that the doctor was not likely to regain his health.

Dr. Paquin lived in Asheville, N. C., over twenty years. He was educated in Missouri, receiving his degree of Doctor of Medicine from the University of Missouri in 1887. After his graduation he spent one year in Paris, where he attended clinics. He received his license to practice medicine in North Carolina in 1899, and in the same year he joined the State Medical Society. For several years, or until he left the state, he was an active and useful member of his county society, and his state society. He contributed to medical society meetings some very valuable papers, he usually discussed some subject dealing with tuberculosis. He joined the Tri-State Medical Association in 1900 ,and attended its meetings regularly, until the time he left the state never missed a meeting.

Dr. Paquin was born in Canada, fifty-five years ago. He located in Asheville a little more than twenty years ago, and at one time was associated with Dr. S. Westray Battle. He was a physician and a professional gentleman of the finest attainments, and his medical friends in the Carolinas and Virginia were many. From 1885 to 1886 he was professor of Pathology in the medical department of the University of Missouri.

About one year and a half ago, Dr. Paquin left Asheville and went to Kansas City, where he was appointed health officer of that municipality.

Dr. A. J. Koontz, of Independence, Va., died at his home June 22nd. Dr. Koontz was one of the most prominent physicians of Grayson county. He was graduated from the College of Physicians and Surgeons in Baltimore, Md., in 1887, and was considered a leading physician of his neighborhood. His death is considered a great loss to his community.

Augusta County Medical Association of Virginia.—At a regular meeting of this society held June 22nd the following resolution was presented by Dr. M. J. Payne and seconded by Drs. Lewis and Wagner:

"We hereby tender the gratuitous services of the members of the Augusta County Medical Association, Inc., to the dependent families of enlisted men serving in the National Guard from Augusta County and the city of Staunton, when so requested by the family or any member of such family."

The resolution was unanimously adopted, and in accordance with it any physician who is a member of the Association will give his services altruistically to any member of a family who is dependent on any man serving in the National Guards from that vicinity.

It is a pleasure for the editor of this Journal to notice that several other counties have taken steps similar to the above, not only in Virginia, but in North and South Carolina.

Dr. E. Q. Houston died July 2nd, of heart disease. The doctor had been a citizen, and part of the time a practicing physician at Davidson College and the upper part of Mecklenburg county for a great many years. Before the North Carolina Medical College was moved to Charlotte he was a teacher in that school, having the branch of anatomy. It was said of Dr. Houston that he was a very excellent teacher, and that he had almost a perfect knowledge of anatomy.

Surgeon General W. C. Gorgas some time ago when in Chicago was asked what he regarded as the most important "health sermon." The Doctor answered as follows:

"I believe that all health officers should turn their attention to those measures which would tend to increase the wages of the poorest class of laborers. I favor that, as one of the basic curses of existing health evils, because it will have the effect of producing more thoroughly good sanitation than any more direct measures they adopt. How can the laborer earning $500.00 a year learn the benefits of good sanitation? He and his family must sleep in one little squalid room; the wife must cook and wash and the family must eat in the other room. It doesn't matter how much you would teach the process of sanitation nor how much learning they receive on the subject of preserving health and preventing disease, it wouldn't do any good, because he hasn't the facilities to carry them out. But give him a better wage so that he can add another room and remove the congestion and the breathing of the whole family in one sleeping room, and then you go to the very foundation of the health problem."

Dr. David Saunders George, of Marshallberg, N. C., died recently in a hospital in Morehead City, N. C. Dr. George graduated from the North Carolina Medical College in 1903. As a medical student, he stood well with his associates; as a practitioner of medicine, after his graduation he made a success. The medical profession in his section of the country has lost a valuable member, he was useful in his community. He was in every sense a desirable professional gentleman.

Dr. George received his license to practice medicine in 1903. He immediately joined the North Carolina Medical Society, and he took an active part in its proceedings. It was only a few times that he missed attending the meetings. He was also a member of the American Medical Association.

Dr. Ransom Lee Carr, of Rose Hill, N. C., is to be married to Miss Mary Estelle Moore on Wednesday evening the 19th of July, at the First Presbyterian Church, Wadesboro, N. C. Dr. Carr is a fine and accomplished medical gentleman. The people of Rose Hill, and the people of Duplin county recognize, and have recognized for a number of years his ability as a physician and his worth to the county as a citizen. He has for several times represented Duplin county in the state Legislature, and he always discharged his duties honorably and acceptably to his constituents. We congratulate the bride.

AS OTHERS LOOK AT US.

As Others See Us: A Review of the Tri-State Medical Association's Annual Volume of Transactions by the "Dublin Journal of Medical Science."

Assuming that it would be of more than passing interest to many of the readers of the The Journal to see the appreciative review of the recent annual volume of Transactions issued by the Tri-State Medical Association of the Carolinas and Virginia. I ask that it be published in full. It is superfluous to remark that The Dublin Journal of the Medical Sciences is one of the oldest and most highly respected of all the British medical magazines, and equally so to state the annual volume issued by the Tri-State Medical Association of the Carolinas and Virginia compares most favorably with similar publications of scientific societies the membership of which is selected from a far larger territory and containing many larger centers of population than does the area cultivated by the Tri-State. I am sure appreciative medical men of the Carolinas and Virginia will be interested in how our British cousins view us. The review that I refer to follows:

J. HOWELL WAY.

Transactions of the Tri-State Medical Association of the Carolinas and Virginia. Seventeenth Annual Session, Held at Charleston, S. C., February 17 and 18, 1915. E. C. Register, M. D., Charlotte, N. C., President; Rolfe E. Hughes, M. D., Laurens, S. C., Secretary-Treasurer. Editor, Rolfe E. Hughes, M. D. 8vo. Pp. 436.

This volume of the Transactions contains almost fifty excellent clinical papers, all of which are interesting and instructive, and fully equal to those of past volumes, which were, and are, valued as permanently useful contributions to medicine. The President, Dr. E. C. Register, whose name is familiar to European physicians as Editor of the Charlotte Medical Journal, selected "The Advantages of Medical Associations" as the subject of his address, and it was worthy of the man, of the site, and of the occasion. We quite agree that medical meetings and medical discussions do much to level up the professional standard of knowledge, and that they should be encouraged; moreover, we believe that practitioners meeting together eight or ten times a year create, by their intercourse, a friendly atmosphere and a spirit of professional comradeship which is essential for pro-

fessional intercourse. We, however, cannot attach as much importance as does the eloquent and learned President to the Tischendorf "find." It enriched the Petrograd library; but had it not been for the Tauchnitz reprint the precious MS. would have remained as unstudied in Petrograd as it was in the Mount Sinai Monastery, where it was a documentary proof of the ignorance and mental hebetude of its owners. Medical Societies diffuse knowledge, and so contribute largely to improve treatment; but all the discoveries of the past—circulation of the blood, the capillary circulation, antiseptics, anaesthetics, vaccination, diapedesis, the midwifery forceps, the discovery of oxygen, and that of X-rays—were with many other steps of scientific progress, the work of individual students. Withal we congratulate the President on his eloquent and suggestive address, which is both enjoyable and instructive. "Obstruction of the Œsophagus," the first of the professional papers, is from the pen of Dr. Stuart McGuire, of Richmond, and is illustrated by the clinical history of many cases ,the most interesting one of which is that of constriction following typhoid fever as a sequela. Dr. Crowell contributes an interesting paper on "Urological Cases," and urges on his professional brethren that more and yet more attention should be given to cases—it is a habit specialists have. "Crotalin in the Treatment of Epilepsy," by Dr. Chewning, gives such a favorable account of the value of the venom of the rattlesnake that we almost regret St. Patrick banished such reptiles from Ireland. "Sympathetic Reflexes," by Dr. I. M. Taylor, is an appeal to the profession to attach more importance to such reflexes as aid sto diagnosis than they have hitherto received. And he advances many and cogent reasons in favor of his contention. We cannot pas sunnoticed Dr. Hall's valuable paper, "Toxaemia i nits Relation to certain Mental and Nervous Disorders." He says well that "most toxins are the result of interaction between body cellular tissue and pathogenic organisms. It is the generalised distribution of these toxic substances throughout the body that underlies most disease manifestations. Dr. Williams contributes a clinical series of cases of wrongly diagnosticated cases of compression of the spinal cord, which is of permanent value. His cases are numerous and his reasoning is clear and convincing. "End Results of One Hundred Consecutive Cases of Appendicitis," by Dr. La Roque, is a good contribution on a subject which has hardly received the attention it should. It is most desiarble to know more of the after-life of patients who have been submitted to operation. "Anuria in Typhoid Fever" is the title of a paper by Dr. Harmsberger, who had the unique experience of meeting with six cases, all of which occurred within a few weeks during 1908. Dr. C. B. McNairy contributes an article on the "Cause and Prevention of Feeblemindedness." He quotes Scripture and teetotal statistics; and does his best to convince us that even moderate drinkers breed feebleminded children. Certainly his teaching comes inopportunely when our heart's most earnest desire is for some Elizabethan type of statesman to replace our present statesmen. A Carolinian might have recalled the fact that John Ribault and his little colony of Huguenots, who in 1562 arrived in Port Royal and founded the city which they named Charleston, were one and all moderate drinkers; and they left a healthy progeny, and exhibited their loyalty and patriotism by naming their city after the last and worst of the Valois, the son of the most sober of the Medici. Once the Moslem became teetotal he ceased to be a poet, scientist, or victor. Space does not admit of our noticing many articles, or even referring to the discussions on the papers (which discussions are absurdly separated from the subjects they discuss); we regret this, but it is unavoidable. The volume reflects credit on the Association, and confirms our high opinion of the zeal with which the science and art of Medicine are studied by our transatlantic brethren.

BOOK NOTICES.

The Blue Bonnet Series—Blue Bonnet Keeps House, or: The New Home in the East, by Caroline E. Jacobs and Lela H. Richards. A sequel to a Texas Blue Bonnet, Blue Bonnet's Ranch Party, and Blue Bonnet in Boston. Illustrated by John Goss. Price $1.50. The Page Company, Boston.

Miss Jacobs writes well—her style is very attractive indeed. In this book, with the assistance of Lela H. Richards, she has given the novel reading public a book very interesting from the very beginning. It is a high grade novel, and it gives me pleasure to recommend it. Mr. John Goss has furnished the illustrations, some of them are exceedingly attractive, he has done his work well. The book contains about three hundred and fifty pages, beautifully bound, the volume is a very attractive one.

Transactions of the Thirty-Seventh Annual Meeting of the American Laryngological Association held at Niagara Falls, Canada, June 1st, 2nd and 3rd, 1915. New York, published by the Association.

We are always very glad to receive a copy of these transactions. This volume contains four hundred and sixty-two pages, with several appropriate illustrations. The officers for 1914-1915 were as follows: President, Alexander W. McCoy, M. D.; First Vice-President, Clement F. Theisen, M. D.; Second Vice-President, Lewis A. Coffin, M. D.; Secretary, Harmon Smith, M. D.; Treasurer, J. Payson Clark, M. D.; Librarian, Joseph H. Bryan, M. D.; Council. The above ex-officio and D. Braden Kyle, M. D., Philadelphia, Pa., George A. Leland, M. D., Boston, Mass., Herbert S. Birkett, M. D., Montreal, Canada; Thomas Hubbard, M. D., Toledo, Ohio.

The Fellows Medical Manufacturing Company of New York City have just mailed to the medical profession of this country a pamphlet, or booklet, entitled "A Few Important Ophthalmic Reminders for the Busy Practitioner." It has several very beautiful illustrations, one of the best illustrations is entitled "Normal Fundus," another "Primary Atrophy of the Optic Nerve," still another is entitled "Secondary Atrophy of the Optic Nerve." This booklet should be read by every physician who receives one, even if it is complimentary.

Nothing has ever been written or at least nothing has ever come to my notice which has seemed to me as an introduction to the use of the active principles according to the method of the immortal Burggreave, to the First Edition of Dr. Shaller's "Guide to Alkaloidal Medication."

Especially did this work meet the wants of the times in which it was written, when the method described was a new one, and the physicians into whose hands the work might fall, needed to be enticed into the use of the new forms and ways by the skill of a master not only of medicine but of language.

But now that the dosimetric method has been modified, naturalized, and renamed, as a result of its introduction into and popularization in America by Dr. Abbott and his ever-increasing band of fellow workers, it seems desirable to have a re-statement of the old truths in the new forms. It is this which is attempted in the work which is here presented—which is, indeed, but a primer of its subject, and aims only to state the fundamentals of active-principle therapy as clearly, as definitely, and as briefly, as lies in the power of its author.

The book is a small one, containing 128 pages, but it is interesting from beginning to end and there is not a page in it that is not valuable to anyone who is trying to benefit the sick by the use of medicine. It gives us pleasure to recommend the book.

Diseases of The Digestive Tract and Their Treatment, by A. Everett Austin, A. M., M. D., Former Professor of Physiological Chemistry at Tufts College, University of Virginia, and University of Texas; Present Assistant Professor of Clinical Medicine, In Charge of Dietetics and Gastrointestinal Diseases, Tufts College; Member of American Gastroenterological Association, and American Society of Biological Chemists; Physician to Mt. Sinai Hospital and Berkeley Infirmary, and Assistant to Boston Dispensary; Author of "Manual of Clinical Chemistry," etc. With eighty-five illustrations, including ten color plates. Price $5.50. St. Louis, C. V. Mosby and Company.

This is a very fiine book, it contains five hundred and fifty-two pages including the index and illustrations. The eighty-five illustrations with ten color plates are indeed very fine, they illustrate the text well, making the volume I believe the best on the subject of the digestive tract that is now published in the English language, or for sale in this country.

Dr. Austin is one of the most accomplished medical writers in the M. S. He gained a great deal of this reputation while he was professor of Physiological Chemistry at the University of Virginia. His book entitled "Manual of Clinical Chemistry" that was only recently published is one of the best books of its kind now in general use. In this book Dr. Austin lays great stress upon the dietetic, physical, medicinal, and many other conditions influencing digestion both in health and in diseases. I do not think that I ever examined any book that the illustrations were more appropriate than they are in this volume. They are thoroughly appropriate.

The article on Gastric Ulcers with its illustrations is worth the cost of this book. I cannot see how any practitioner who is interested in the diseases of the digestive tract can afford to be without this volume, or be interested in it. We thoroughly recommend the book.

Sylvia of The Hill Top, by Margaret Rebecca Piper, author of "Sylvia's Experiment; The Cheerful Book," Etc. Illustrated with a frontis-piece in full color by Gene Pressler. Price $1.25. The Page Company, Boston.

In the Cheerful Book Miss Sylvia Arden proves herself a messenger of joy and cheerfulness to thousands of readers. In this new story she plays the same role on Arden Hill during her summer vacation and is the same wholesome, generous, cheerful young lady who made such a success of the Christmas Party. There is, of course, a Prince Charming in the background.

The frontispiece in full color by Gene Pressler deserves a compliment—it is a beautiful picture. The volume is a handsome one, with about three hundred and fifty-five pages.

Eleanor of The Houseboat, by Louise M. Breitenbach, author of "Alma at Hadley Hall," "Alma's Sophomore Year," "Alma's Junior Year," "Alma's Senior Year," Etc. Illustrated by Charles E. Meister. Price $1.50. The Page Company, Boston.

This is a very interesting novel. Miss Breitenbach made quite a reputation as a writer when Alma at Hadley Hall was published. The style of writing that she exhibited there is quite noticable in this volume. The book contains about three hundred pages and is interesting even from the beginning. The volume is a handsome one—the publishers did their work well. Charles E. Meister, the artist, did his work well—the frontispiece is beautiful. To any one who wants to read an interesting novel. I recommend this book.

Transactions of The College of Physicians of Philadelphia. Third Series Volume the thirty-seventh. Philadelphia, Printed For The College.

From the various volumes of transactions that come to this office annually, I received none that is more valuable than this. The transactions this year makes a beautiful volume of five hundred pages. Of the thirty-seven volume that has been published, we have in this office twenty-six. They are, with the exception possibly of the Transactions of the Royal Academy of Medicine in Ireland, considered the finest accumulation of volumes of this character that is in this library. I mention this circumstance to illustrate how much I value these annual volumes of transactions that come to this office.

The illustrations in this volume, and the reading matter in it, exhibits numerous evidence that the members of this society represent the finest type of our professional gentlemen that exist in these United States.

The Lightning Conductor Discovers America, by C. N. & A. M. Williamson. Published by Doubleday Page & Company, Garden City, New York. Price $1.50.

Here is a combination to delight the hearts of those who love a tale of mystery, adventure, romance and travel. The charming Patricia Moore, a motor car, and a very eventful trip over the Grand Tour afford the Williamsons one of the best opportunities they have had for a gay, sparkling novel.

But to all lovers of Long Island, the Hudson, Maine, Massachusetts, New Jersey, Pennsylvania, the Berkshires and the White Mountains this tale is far more than a spirited piece of fiction. The Williamsons have celebrated in every page the beauties of New England. Every spot dear to us in this region and not a few quaint and lovely towns that are only names to many Americans take on fresh interest because of the mystery and romance of the Lightning Conductor.

Just as England played a part in "Set in Silver," by the same authors, Spain in the "The Car of Destiny," and Holland in "The Chaperone," so our Eastern States become the setting for "The Lightning Conductor Discovers America," a story which many say is the most attractive picture of New England presented in years—certainly one of the most charming novels the Williamsons have done. This is a very interesting novel from beginning to end.

Collected Papers of The Mayo Clinic, Rochester, Minnesota. Edited by Mrs. M. H. Mellish. Volume VII. 1915. Philadelphia and London. W. B. Saunders Company. Cloth $6.00 net; Half Morocco $7.50 net.

No surgeon in this country should be without these annual volumes that are being published by the Medical Clinics. Many chapters and many parts of this, the 1915 volume, makes very valuable reading not only for the Surgeon but for the general practitioner as well. The first chapter is entitled "Tuberculosis of the Tongue," it is full of information, and the statistics bearing upon the subject is the most complete that has been published up to date. The editor of the volume, Mrs. Maud H. Mellish, says that in order that the Collected Papers each year may contain an approximately uni-

form amount of material, it has been necessary to omit from the present volume a number of articles that were read before societies but not published during 1915. Some of these papers are parts of series of studies already published, and will be included among the papers of 1916. Those not belonging to consecutive series have been abstracted in this volume.

It is a wonderful work that the Mayos are doing in surgery. Nothing in the history of medicine or surgery has ever equalled it, and I doubt very much after these men are gone that there will ever be two men who can take their places, they have so completely led the world in surgery for so long and so successfully. We have had father and son to be president of the United States, but we have never had two brother doctors to be president of the American Medical Association.

What Every Business Woman Should Know—A complete guide to business usages and requirements with explanations of business terms and commercial forms, by Lillian Cecilia Kearney. Illustrated with diagrams and photographs. Cloth, Large 12mo. net $1.60. Publishers, Frederick A. Stokes Company, New York.

A book for the business woman and for the woman without experience who has business matters thrust upon her. Either woman should have at her elbow, this volume written by one who has had fifteen years' experience in the business world. Terms and conditions which until recently have lain almost exclusively inman's realm are here made clear for women. The home woman will also find much in it that will be helpful in settling the little things that come up in everyday life: How shall I properly write this check? What is the shortest and cheapest way I can telegraph my message? How many ways can I invest my savings? How shall I start a filing system? What does that abbreviation stand for? Shall I send by parcel post or express? What is a letter of Credit? A Traveler's Check? How shall I become a Notary Public? What is a Power of Attorney? These are a few of the questions answered in this book.

Miscellaneous.

The term aerial disinfection is employed to mean the use of the air as a vehicle for diffusing, to all exposed surfaces of the room and its contents, a gaseous germicide. The disinfection of the air itself, more or less loaded with germ laden dust particles as it usually is, may be regarded as incidental, just as would be the case with water used in making a disinfectant solution. Air and water are the natural agencies for cleansing an infected apartment. Why should we not render the former germicidal as well as the latter? Some of the most prominent opponents of fumigation advocate a renovation of infected apartments so thorough as to include repapering, repainting, etc. They would subject the scrub woman, paperhanger and painter to the danger they thus clearly recognize, without the protection which a prior and efficient fumigation would afford.

An eminent scientist has placed before a symposium of health officers seven questions hereinbelow mentioned:

1. After what diseases do you think it desirable to fumigate?

2. Do you regard formaldehyde as the most satisfactory aerial disinfectant? If not, what in your opinion is better?

3. Do you think the conclusions reached by Mr. Adams justified?

Reads as follows:

"I am assuming in what follows, only two points: That you are an adult, and a non-consumptive at present. On the hypothesis:

1. You have had tuberculosis.

2. You have cured yourself of it.

3. In the process of curing yourself you have so fortified your body against it that you are safe against "catching" the disease from any other person.

4. If you now become a consumptive it will be through a relapse and by your own fault.

4. Even if this new theory of tuberculosis were generally accepted, would it not point to the necessity of fumigation after pulmonary phthisis to protect children?

5. Have you, in your experience, thoroughly satisfied yourself as to whether or not communicable diseases are commonly conveyed by objects handled by the patient? In other words, what role do fomites play in carrying infection?

6. How is it that some sanitarians who advise burning books handled by a person having a contagious disease, regard the fomite theory, as applied to things generally, so lightly that they do not fumigate the room and its contents?

7. Is not the viability of pathogenic bacteria so influenced by deficiency of light and fresh air, and so affected by atmospheric conditions in general, as to make it unwise to rely upon disease

germs shortly succumbing to conditions practically unattainable without fumigation?

A careful study of the foregoing questionaire will doubtless present many phases of the varied theories based on the experiences of our leading sanitarians, and, as good citizens, the laity itself should appreciate the difficulties encountered in arriving at a majority vote. Yet a large majority (about 95 per cent.) of the state health officers, joining in the symposium, favor a continuance of formaldehyde gas disinfection on the practical basis that one cause of spreading communicable diseases (room infection) should not be neglected because another has been found (carriers), whatever the relative importance of the two agencies may be. Destroy bacteria by volatilizing formaldehyde, without ignition, in warm moist air.

The Prophylactic Treatment of Hay Fever.

The best way to treat disease is to prevent it. This is not a new thought. The expressive (if possibly inelegant) "prevention is better than cure" is as old as medicine. Unfortunately, prophylactic therapeutics has its limitations, and, while the science of preventive medicine is undoubtedly expanding, these limitations are still rather sharply defined.

So far as the preventive treatment of hay fever is concerned, there is reason to believe that some real progress may now be recorded—an agreeable augury when one reflects upon the long and profitless search for a curative agent worthy to be called a specific.

Ragweed pollen extract, for example, gives promise of being an efficient immunizing agent in the autumnal type of hay fever. Its use is based upon the generally accepted theory that the ordinary hay fever of late summer and early fall, with occasional exceptions, is due to the pollen of ragweed, or to the toxic effects of other pollens closely analogous to ragweed in their protein content.

A reliable ,accurately standardized ragweed pollen extract is supplied by Parke, Davis & Co. Each package contains three 5-mil (5-Cc.) vials, of 10 units, 100 units and 1,000 units per mil (Cc.) respectively; one vial of physiologic salt solution for use as a diluent, and one scarifier. The extract is administered hypodermatically. Injections may be made with any small hypodermic syringe, the so-called tuberculin syringe being well adapted to the purpose. Literature giving all necessary information as to application and dosage accompanies each package. The extract may be procured through any retail pharmacist.

While good results have attended the use of ragweed pollen extract after the disease has become established, the best effects are said to be obtained by early immunization. This prophylactic treatment should begin a month or six weeks before the expected manifestation of symptoms.

The Delicate School Girl.

Even the most robust and generally healthy children show the deleterious results of the modern system of educational "forcing" that prevails in most of our larger cities. The child that starts the school year in excellent physical condition, after the freedom and fresh air of the summer vacation, in many instances, becomes nervous, fidgety, and more or less anemic, as the term progresses, as the combined result of mental strain and physical confinment in overheated, poorly ventilated school rooms. How much more likely is such a result in the case of the delicate, highstrung, sensitively organized, adolescent girl? It is certainly a great mistake to allow such a girl to continue under high mental pressure, at the expense of her physical health and well being, and every available means should be resorted to to conserve the vitality and prevent a nervous breakdown. Regularity of meals, plenty of sleep, out-of-door exercise without fatigue, open windows at night and plenty of nutritious food, should all be supplied. Just as soon as an anemic pallor is noticeable, it is a good plan to order Pepto-Mangan (Gude) for a week or two, or as long as necessary to bring about an improvement in the blood state, and a restoration of color to the skin and visible mucous membranes. This efficient hematinic is especially serviceable in such cases, because it does not in the least interfere with the digestion nor induce a constipated habit.

"I have used Tongaline for more than 20 years and have found it most satisfactory in every way. A very recent case which came under my care was one in which several physicians had failed, even with the use of organo-therapy. Within 48 hours after Tongaline had been administered, there was a decided remission of temperature and pain and at the end of one month the patient, who was a lady about 70 years of age and had been a sufferer for years, was able to go about her room and to comb her own hair, something which she had not done for six months previously."

A Medicinal Trochar, for the treatment of dropsical effusions, is as important an innovation of modern medical science as the therapeutic lancet for the relief of vascular congestion. The latter office has for several years been performed by aconite. The former function is fulfilled by Anedemin. This excellent preparation is a scientifically balanced and skilfully compounded mixture of Apocynum Cannabium, Urgenea Scilla, Strophanthus Hispidus, and Sambucus Canadensis. It is well enough, in a general way, to call it a Medicinal Trochar, but, as a matter of fact, of course, its action is much more fundamental and thorough than that of a trochar. It strikes at the root of the trouble, and removes the cause of the Aanasarca, rather than its results. It restores the balance between the arterial and venous systems, at the same time improving cardiac tone, and this prevents the accumulation of fluids in the tissue. The Anedemin Chemical Company, Chattanooga, Tenn., will be pleased to furnish physicians wth a liberal working sample of Anedemin Tablets for a thorough try-out. Anedemin is a remedy dependable always, can be pushed and administered with safety wherever indicated. Has no cumulative action. ad-6-16

Guaiodine.

Dear Doctor:

"Ninety Two Per Cent. Efficiency." This was what a Doctor in Denver, Colorado, "The Home of The Intravenous Products Company," told us, and he has used GUAIODINE in forty-two cases. He is at the present time using this on an infected jaw. Three previous cases, which he had on the same type of infection, died. This fourth case upon which he is using GUAIODINE is healing, and the patient is recovering rapidly.

That is not a true specific, but we do claim it is a pretty good record. Think of it! Out of forty-two cases of Gonorrhea, NINETY TWO PER CENT. EFFICIENCY!

If you have used it you probably know by this time what an invaluable product it is, not only for Gonorrhea, but for open wounds, spraying the throat and nose, or where there is danger of blood poisoning.

We again wish to call your attention to our product, "VENARSEN," a preparation being used very extensively for the treatment of Syphilis, Pellagra and Chronic Malaria, with most satisfactory results. Our regular VENARSEN contains the following ingredients:

4.37 grains of Metalic Arsenic.
1-80 grains of Biniodide of Mercury.

DOUBLE STRENGTH contains double the amount of the regular.

Our TRIPLE STRENGTH contains—
12 grains of Arsenic.
1-6 grains of Biniodide of Mercury.

We recommend the Double and Triple Strength for the treatment of Syphilis, especially in the tertiary stage. Our literature recommends one ampoule to be given every four to six days. We have several cases on record where the double strength has been given for five consecutive days without any bad results or reactions, again showing the low toxicity of VENARSEN. Triple Strength has been given in a number of cases with most remarkable results.

If you desire to give these products a trial or wish further information, write Mr. C. Tanghe, Distributor for these products, Atlanta, Ga.

There is a Reason for the Clinical Results With Vaccines in Hay Fever.

The discussion of vaccine therapy in its efficiency in Hay Fever has brought out many interpretations. The co-relation of clinical experience, and the lessons learned from the science of bacteriology shows the importance of the general consideration of the therapeutics of bacterial diseases, and as Sir Almroth E. Wright says, "Here the problem which ranks before every other is that of compassing the destruction of microbes in the tissues and fluids of the living body."

When we consider the role pathogenic micro-organisms play in their rapid multiplication in tissues subject to pollen irritation we soon begin to appreciate the advantages of vaccine therapy in Hay Fever. The reason for using vaccines in hay fever is that by this means we rapidly stimulate within the body the natural laboratory to furnish bacteriotropic substances which enter into a destructive biochemical combination with the bacterial protoplasm of the germs multiplying in the pollen irritated tissues.

The bacteriotropic substances thus furnished do not become inert in the blood and do not disturb or poison the tissue, and naturally by eliminating complicating germ invasions in hay fever cases the pollen irritation is of minor importance. The clinical fact is that Sherman's bacterial vaccines are rendering relief to the many patients subjected to the ravages of this disease, and physicians who are using them know this from their experience.

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you are not getting the results you would were you using the original. On the contrary, your patients fail to receive the benefits they hope for—or you to accomplish the effects you have a right to expect.

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Irritations, chafings, etc., are exasperating, but—

K-Y Lubricating Jelly

quickly cools, soothes, and relieves. "Keeps the hands away, and doesn't grease the linen."

Sig: Wash off previous application before applying more.

Collapsible tubes, at druggists, 25c.

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For sympathy—the parson
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For pain—the doctor

and for the doctor's use,—

K-Y ANALGESIC

which does not relieve every pain, but which is

"A POWER FOR COMFORT"

in a surprisingly great number of painful conditions, principally headache, neuralgia, and "rheumatic pain."

Where the physician does not wish to use a narcotic or a hypodermic, **K-Y ANALGESIC**, locally applied, will often be found sufficiently effective,—

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Greaseless, water-soluble, convenient, economical.

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Double Pulley Extension.

It is a tube that will telescope to fit any bed. Curves out 5 inches from the foot of bed. The vertical piece that supports the pullies slides up or down or any place along the bar. The pullies are six inches apart, and by a thumb screw can be tilted either way. The adhesive going direct to pulley from either side of the foot without the block of wood, holds the foot at any angle. A loose pulley hanging to the rope to which a single weight is attached gives even traction on both sides. Can be adjusted to any bed in three minutes. Can be clamped onto any bed in three minutes. You will say, as all doctors do Why did we ever ise the single pulley?.

A SUPPORT, that will hold the limb in any position and maintain it that way, and at the same time enable you to see and know that the fracture is in position. It is the only ideal way of treating a fracture of the leg or thigh, and is equally helpful in sciatica, hip-joint disease, spinal injuries, or any trouble requiring traction.

For leg or thigh, adhesive strips are placed on either side of the leg, and each strip left to extend eight inches below the foot. The ends are then folded and fastened through rings with a safety-pin. In some cases it may be advisable to use a long posterior splint, in which case pad lightly with gauze and use a two-inch adhesive around both splint and leg. By adjustment made on pulleys by a thumb screw, the foot can be held at any angle or elevation. The direct, even traction on either side of the leg holds the foot without lateral support. You don't have to use a block of wood to hold the adhesive away from the malleolus. You will find you can get all the traction necessary with much less weight than by any other method, as the pull is constant, direct, and without friction. Your patients will appreciate this method of treating fractures. It gives them far more freedom of movement, and the bed pan can be used with very little inconvenience.

You have no uncertainty as to what you are going to do when called to treat a fracture. You don't require the assistance of bystanders in getting boards, nails, hammer, and brace and bit. You are master of the situation—a professional man, not a carpenter.

DOUBLE PULLEY EXTENSION CO.,
Kinsley, Kans.

ad-9-16

Sander's Eucalyptol in Pulmonary Affections.

In all bronchial troubles it is essential that whenever eucalyptus is used it should be free from irritant effects, and Sander's preparation is prepared specially with this end in view. To obtain the best results from its use a few distinctive rules have to be observed. It should not be given internally in acute bronchitis, for the expectoration is diminished by it. In the early stage of acute bronchitis the greatest benefit will accrue from a foment to the chest on which 20 to 30 drops of Sander's Eucalyptol are sprinkled. The Eucalyptol is inhaled together with the steam. In the subacute broncho-pneumonias of children, 30 drops of Sander's Eucalyptol should be added to a tablespoonful of hot olive oil and the whole chest thoroughly rubbed. The friction induces the child to fill the collapsed lung-tissue and to inhale the Eucalyptol.

Its internal administration should be reserved for the chronic bronchites with profuse expectoration. It should then be given in 5 drop doses either in a tablespoonful of water, or, when ol. morrhuae is indicated, it can be added in the proportion of 5 drops to a drachm of cod liver oil ,the taste of which it disguises very effectively. Whenever the discharge is purulent or foetid (bronchiectasis and foetid bronchitis), or when an antispasmodic and antiseptic effect is desired, as in emphysema and asthma the antiseptic inhalation below will give great relief.

In all tuberculous cases Sander's Eucalyptol should not only be given internally with cod liver oil, but the following inhalation, especially when used continuously, will change the clinical picture often very quickly and decisively. R. Acidi Carbolici, 1 dr.; Spir Chloroform, q. s. 1 oz.; inhale 15 drops frequently from a Robinson's inhaler.

Sander's Eucalyptol, unlike other eucalyptus products, is non-irritating. It was introduced to the profession in 1875, and has the endorsement of men like Prof. Dr. Hazard, the late Lord Lister, Prof. Dr. Mosler, and other eminent physicians of the U. S. and abroad, who have used it in the various affections for which it is indicated, and it has, as Prof. Dr. Mosler states: "up till now always rendered me the most excellent services."

ad-7-16

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The Original Malted Milk

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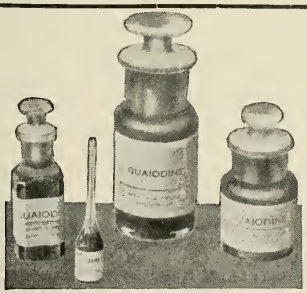

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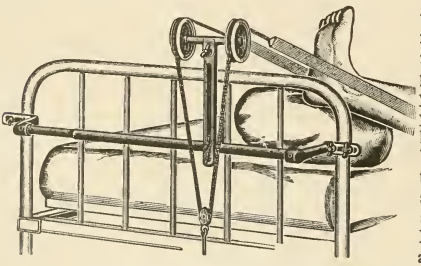

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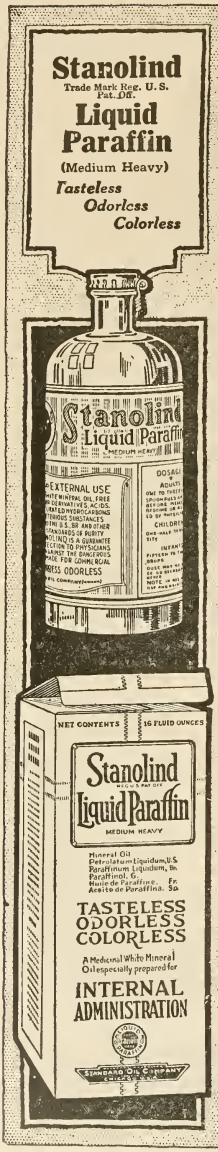

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John A. Ferrell, M. D., New York.

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JOHN A. FERRELL, M. D., NEW YORK.

Edited by Drs. D. W. and Ernest S. Bulluck, Wilmington, N. C.

Striding firmly and with measured tread in the vanguard of prominent physicians of North Carolina we find Dr. John A. Ferrell. He was born at Clinton, N. C., December 14, 1880. As a boy he led the true boy's life—interested in animals, fond of fishing, and observant of character and forms of nature.

He began school life in the graded school of his native town, and received his B. S. degree at the University of North Carolina in 1902. One year after his graduation from the Unversty he receved appointment as Superintendent of public schools in Sampson County, which office he held for three years. This public office did not deter him from his settled purpose to study medicine, but added to it financially. The Medical Department of the University of North Carolina was the storehouse from which he gleaned the theory of medicine, and in 1907 he came forth fullfledged and unafraid to begin the practice of his chosen profession.

At the age of 26 he located at Kenansville (Duplin Co.), N. C. Careful, thorough, methodical and painstaking, his conscientious efforts in the faithful discharge of every duty devolving upon him, no matter how small, elicited not only the appreciation, but the esteem and confidence, of all whose interests were committed to his care. In three years his horizon broadened and he became Assistant Secretary of the State Board of Health at Raleigh, in which capacity he worked until July, 1913. Bigger things dawned and Dr. ohn A. Ferrell was harbored in Washington, D. C., Assistant Administrative Secretary of the Rockefeller Sanitary Commission, and soon thereafter in New York City as Assistant Director-General of the International Health Commission of the Rockefeller Foundation, where he sits intact.

Dr. John A. Ferrell has connected himself with the American Medical Association, Medical Society of North Caroilna, Tri-State of Virginia and the Carolinas, Southern Medical and American Public Health Associations and was for three years Secretary of the State Medical Society—1912 to 1915.

Dr. Ferrell has not sought to attain his best unyoked, but early in his career he married Miss Lucile Devereoux Withers of Charlotte, N. C., and two sons have welded this union.

This devotee of all things medical has owned kinship to the vine and climbed upward over night, while other men slept. His pen has run swiftly to unfold great legacies of thought, which through the media of the Medical press will be sown broadcast.

Dr. Ferrell is now only 34 years of age —green in his leaf—veritably:

"A lever to uplift the earth,
And roll it in another course."

DYSMENORRHEA.*

By Henry F. Long, M. D., Statesville, N. C.

To discover new and certain methods whereby we may preserve health or restore to health the diseased, has long been the laudable ambition of every member of our profession. This has been the goal of their desires, shown by their keen searching investigations into the cause of disease, the curing of those diseases the cause of which they know and, above all, their untiring, zealous, unselfish efforts to prevent disease. In certain instances their strenuous, self denying, self destroying efforts have been crowned with success. Humanity has always reaped the benefits of such work. The investigator has often paid for his knowledge with his life. Still, the good work has gone forward daily, drawng more and more recruits into the field, for even so the harvest is plentiful but the laborers are too few.

Formerly it was the custom to endeavor to discover a cure for the disease, little or no effort being made to discover the cause thereof. Certain names were given to designate diseased conditions, wherein certain symptoms predominated. Thus were the various diseases given names, often inappropriate, erroneous or misleading. Modern investigators and students of disease disregard the ancient titles and seek to classify disease according to what it actually is, not by the symptoms produced.

In furthering this method, I wish today to submit some observations upon

*Read before the North Carolina Medical Association, Durham, N. C., April 18, 1916.

that condition known and described as dysmenorrhea. Some of the groups of symptoms so called I believe to be due to a diseased condition elsewhere, and in such instances the diagnosis of dysmenorrhea is an example of error in diagnosis.

For years and years it was according as symptoms seemed to justify, grouped as follows: (1) Ovarian; (2) Uterine; These main groups were further subdivided, the ovarian into: (1) Neuralgic accompanied by dysmenorrheal membrane and (2) that due to malformation; the uterine into (1) Obstructed and (2) Unobstructed.

Further description of the condition makes mention of the fact that often one ovary could be felt in the culdesac of Douglas. This palpable ovary was usually found enlarged—from slightly enlarged up to the size of a hen egg.

Membranous dysmenorrhea, with exfoliation and very severe pain they believed to be due to obstruction of the cervical canal. The most frequent cause of dysmenorrhea was thought to be stricture of the cervical canal, due to fibroids, flexions, versions and contractions.

Treatment was empirical, and ran from what was called palliative, that is, rest in bed, light diet, hot water bottles, hot ginger tea, to drugs whose names are legion, some conforming to rule and being harmless, some disregarding the rule and being extremely harmful, as coal tar products, opium and morphine.

Radical treatment was to dilate the cervix and apply a pessary; the dilatation to allow the free passage of any exfoliated membrane and the pessary to correct any displacement.

Marriage was often advised as it was thought that childbearing would relieve the trouble.

No new light was thrown upon this condition until Ochsner called attention to the appendiculo-ovarian ligament of Clado and its relation to the right ovary and the possibilities of an extension of inflammation from the appendix to the right ovary and tube.

The appendiculo-ovarian ligament of Clado is a fold of peritoneum extending from the appendix to the right ovary. This fold of peritoneum contains the appendiculo-ovarian artery, which forms a direct anastamosis between the vessels of the ovary and those supplying the appendix. The lymphatic vessels in the ligament of Clado connect the appendicular and ovarian lymphatic systems. This ligament is present in ten per cent. of females (Clado).

The close anatomical relationship between these two organs renders the right ovary liable to infection from even a mild attack of appendicitis through the medium of the ligament of Clado. The direct communication of the inner coats of the appendix with the lymphatic channels makes an extension of infection without perforation easy.

A series of attacks of appendicitis, even though mild, may be sufficient to cause a chronic inflammation of the right ovary or of its peritoneal covering. A thickening of this membrane prevents the rupture of the Gaafian follicles and causes the formation, as each follicle ripens, of a small cyst. As these cysts increase in number they may either remain single or coalesce and form one large cyst. In either case there is an enlargement and increase in weight of the right ovary which then naturally tends to descend into the culdesac of Douglas. This is the ovary which the older gynecologists so often discovered in their examination of the pelvis in patients suffering from dysmenorrhea.

Infection of the right ovary and tube may also occur by direct extension from either a rupture of the appendix with the liberation of infectious material which will gravitate to this region or where the appendix is long and the cecum very mobile the tip of the appendix, which is most often the seat of inflammation, may touch the right ovary, or even be firmly attached to this organ, as the writer has often seen.

Should there be a leakage of infectious material from the appendix, and there always is when it is inflamed, some of it may pass into the right Fallopian tube and into the uterus, setting up, on its way down, an inflammation of these structures. This explains many cases of endometritis that cannot be traced to upward extension of infection. Surely many of the cases of endometritis with leucorrhea and painful menstruation, mentioned by the older writers, was due to this cause.

Once the ovary becomes diseased its internal secretion, which governs menstruation, becomes perverted and there may be excessive loss of blood at the time of the periods as well as other manifestations of disordered menstruation.

Every surgeon has been surprised at finding, in young females, the right ovary more frequently diseased than the left. A diseased appendix is usually found when operating for the removal of a cystic right ovary. Personally, I have never removed a diseased right ovary without finding the appendix either actively diseased or showing, by its obliterated extremity or appendiceal ad-

hesions, signs of a previous inflammation.

When a girl has her first attack of dysmenorrhea or, as I would rather call it, Belly pain, we should suspect appendicitis, make a careful physical examination and get a leucocyte and differential count. A rise in the leucocyte count and in the percentage of polynuclears would suggest appendicitis.

I do not mean to claim that in every attack of recurrent appendicitis you have an increase in the leucocyte count and rise in the percentage of polynuclears but if you do have it, the diagnosis would be established. After one or more attacks of acute inflammation the appendix will tuck its tail like an abused dog and adhesions will form—one of nature's efforts to limit the trouble. In such cases there may be colic-like pain from the appendix without an increase in the leucocyte count.

The question naturally arises, "why do such patients have abdominal pain at the beginning of the menstrual period if it is due to recurrent appendicitis?" The explanation is simple: In the premenstrual period there is a congestion of the pelvic organs which reaches its greatest intensity at the beginning of the menstrual flow. The appendiculo-ovarian artery which forms an anastamosis between the appendicular and utero-ovarian vessels, when the ligament of Cladd is present, makes a congestion of one part likely to set up a like condition in the other. An appendix which has gone through several attacks is like a sleeping dog, easily aroused, and the slight congestion incident to menstruation is sufficient to set up a recurrent attack which manifests itself by cramp-like pains. These pains become less and less as the flow is established and the congestion of the pelvic organs subsides.

In such cases the similarity of symptoms are so pronounced that in a composite history record the salient features would stand out in clear and unclouded lines. These symptoms, differing in minor detail—usually intensity—are as follows: nervousness; indigestion; flatulence; constipation; headache; painful menstruation; pain in the right side, more pronounced just before and at beginning of flow, but also felt between periods; profuse flow; profuse and prolonged flow. These patients will tell you they have never suffered severe attack of belly colic, pains or cramp; they may acknowledge an occasional attack of "acute indigestion"—pain, colic, nausea and emesis—but say, in explanation, "it did not amount to much and lasted only an hour or two;" or "I was alright next day." Such an admission should put us on our guard—it is not the proverbial straw that shows which way the wind blows, but a sign board at the cross roads to point the way, and he that runs may read if he will. The number and complexity of symptoms that a carefully taken history will disclose indicates plainly that a disease and not a condition confronts us.

Of one of this class of patients I wish to give my experience in detail, that I may thus bring to your attention the possible and probable evil results of an "appendicitis dysmenorrhea." This patient had all the usual symptoms and complaints, particularly menorrhagia. Examination under ether disclosed an enlarged cystic right ovary. So that there was present: cystic right ovary, endometritis, painful menstruation and severe bleeding at the time of the periods.

Operation disclosed a badly adherent appendix, showing the effects of many previous attacks. This, together with the cystic right ovary, was removed. The patient made an uneventful recovery.

For twelve months afterwards the periods were normal and she was entirely free from menorrhagia and dysmenorrhea. Then the patient began to have attacks of menorrhagia which were serious enough to demand a second examination. A cystic left ovary was found. At a second operation the left tube and ovary were removed and again the patient made a good recovery. Since then she has had no further trouble.

In such cases I believe the origin of the trouble was in the appendix. From the appendix the infection extended to the right ovary. Later an endometritis developed probably from the same focus of infection. The inflammation of the right ovary led to a thickening of its outer covering with the consequent retention of the Gaafian follicles as they ripened and the formation of a cystic ovary, with its perverted internal secretion. This in turn caused the excessive bleeding at the time of the periods. After the ovary and appendix were removed all the symptoms disappeared for a year. The reappearance of the menorrhagia was due to cystic degeneration of the left ovary from what I believe to be an extension of infection from the endometrium by way of the left Fallopian tube to the left ovary.

If, in these cases, had the appendix been removed at the first attack I believe these young women would have had no trouble with the ovaries, no further dysmenorrhea, and their full procreative powers would have been preserved.

I have operated upon 196 young

women who came in for relief from the pangs of dysmenorrhea but whose condi-
TWO—DYSMENORRHEA—
tion was the result of appendicitis. Of these, 166 gave a history, before operation, of painful menstruation. A careful examination disclosed a diseased appendix. A simple appendectomy completely relieved the dysmenorrhea in practically all the cases.

30 of the 196 patients that had given a history of painful menstruation were found to have diseased right ovaries which were removed. In these cases the left ovaries were apparently normal.

Conclusions.

1. The extraordinary number of articles which have appeared on this subject, the varied and various classifications proposed, the unlimited and unending list of remedies recommended therefor, all tend to show that in many instances the symptom dysmenorrhea is mistaken for the disease, the shadow taken for the substance, the effect for the cause.

2. Therefore must we be the more guarded in dealing with this perplexing problem. We must in every way possible protect ourselves from the danger of jumping to conclusions on very slim evidence or allowing our patients to thrust upon us their own erroneous diagnosis. In no other condition is the importance of a clear, concise history so aptly demonstrated, for, taken in conjunction with the several other symptoms, such as headache, abdominal cramps and backache, dysmenorrhea itself is only a symptom, of the underlying cause for which we are, or should be, patiently and earnestly searching.

3. An early diagnosis of an offending appendix means much to the patient, the community and, incidentally, to the doctor. It may mean the rescue of an ovary from impending destruction, thereby conserving the reproductive powers of the patient and rescuing her from the long train of evils which the artificial menopause will bring. For the doctor. the satisfaction that a perplexing problem correctly solved, a difficult task successfully worked out, will bring.

SECTION ON THE EYE, EAR, NOSE AND THROAT. *

Opening Remarks of Dr. K. P. Battle, Jr., Raleigh, N. C., President of Section.

We meet today in accordance with a vote taken at the large gathering of Eye, Ear, Nose and Throat men last year in Greensboro.

In preparing for the session of the State Society at Morehead in 1913 the innovation was made of establishing, among the many sections already existing, one on the Eye, Ear, Nose and Throat. This was on the old plan of having a chairman appointed by the President of the Society to have charge of the getting up of a section program, the papers to be read before the general meetings—as all papers had been up to that time. Dr. J. G. Murphy was made chairman and secured the preparation of five good papers. But his testimony is that the experiment was not a success. It was no doubt due partly to the charming distractions of time and place, but the lack of interest shown by the general membership was such that, according to the printed transactions, only one of the papers was read. Those of our men present consequently decided in a caucus that that sort of section should be abolished, and that papers should thereafter be presented through any section of the Society that the individual might select. It was voted that a meeting of the specialists in our line present the next year should be held for the discussion of topics of common interest but not scientific. Dr. Murphy was chosen president. Accordingly in Raleigh in 1914 the twelve men in attendance held a meeting, got better acquainted with one another and had interesting discussions on such subjects as fees and the proper charge, if any, to ministers of the Gospel and to nurses. It was again decided to have a similar meeting in 1915 and to leave it to each member to read a paper before the general sessions if so disposed and in any department that suited him.

On the Greensboro program there were six papers listed from the men of our specialty. As so often happens in the confusion of so large a gathering those that were read were not received with encouraging attention and half of them were crowded out altogether. It was from such considerations that the large assemblage of our men came to the conclusion that the time was ripe for the

*Read before the North Carolina Medical Society, Durham, N. C., April 19, 1916.

establishment of a new section, for the reading of scientific papers, but with the vital difference from the one of 1913 that it should meet independently and in its own time and place. They elected a president and secretary and directed them to arrange for carrying out the plan. The Society officers cordially endorsed it and we now have the result.

We have easily the necessary members for such a section. But it has not always, nor long, been so. As we look backward some extraordinary facts appear.

Our pioneer, of forty-three years ago, is still an interested observer of what we do, though retired.

The second to join the ranks, four years later, is in active practice and is with us here today.

At the end of the ten years following the first specialist's advent there were still only two in the entire state.

At the end of the first twenty years there were only five.

At the end of the first thirty years there were only thirteen.

But during the fourth decade, to this thirteen thirty-eight were added; and there are now seventy-eight.

This recalls a contrast. It is a matter of personal experience. On one occasion, during the early years when our special confreres were still not so numerous as "the leaves that strew the Vale of Vallombrosa," about the end of the second decade it may have been, when there were three others, in addition to my partner and me, within the narrow limits of our State boundary, (it seems only the day before yesterday) the traveling representative of an optical company with whom we dealt brought us news of another specialist with designs on the Old North State. It is likely that our friend saw signs that we felt that we would be crowded, for he mockingly bade us be of good cheer. It was only a question of time. They were coming—like the birds in the spring, they would come. Time passed and the other day the same man was in our office again, when our firm had been increased to three and there were more of our specialists in the town than there had been before in the whole state. I was showing him the roll of 78 prospective members of our section. He did not recall his former prediction, and his solemn comment was: The old State is about full, isn't she?

The pioneer mentioned was Dr. Geo. W. Graham. He graduated from the University of North Carolina in June 1868, studied medicine at the University of Virginia 1868-9 and graduated from the Medical Department of the University of the city of New York in 1870. He settled in Atlanta and practiced general medicine nearly two years. He then returned to the University of New York, prepared himself for eye and ear work and in February 1873 located in Raleigh. He practised there until March 1, 1880, when he moved to Charlotte. In August 1905 he retired.

Dr. Graham was joined in 1877 by number two, in the person of Dr. R. H. Lewis. From the University of North Carolina he went like Dr. Graham to the University of Virginia. He graduated at the University of Maryland in 1871. After a year or two of general practice in Tarboro and its neighborhood he had his special training in Baltimore, mainly as a private pupil of Dr. Chisolm. The first two years of work in his specialty were in Savannah, in 1875-6. He then moved to Raleigh where he has been ever since, completing this spring his thirty ninth year of active practice, with the exception of eleven months out of work on account of illness three years ago.

The third recruit was the present speaker who went into partnership with Dr. Lewis in 1886 and is still associated with him.

In 1890 Dr. H. O. Hyatt, who took his medical degree in 1868 began to drop general practice and devote himself to the eye, continuing his location at Kinston.

The next was Father W. H. Wakefield, who began special practice in 1891 at Greensboro and moved the next year to Charlotte. He does not look it, but he is old enough to have had, for five years now, the assistance of his son.

Dr. W. C. Galloway, more patriarchal, with his beard of Abraham, in appearance if not in performance, is the next on the list. His medical diploma is dated 1874 but not till 1894 in Wilmington did he limit himself to special work.

Number seven was Dr. G. S. Tennent who, graduating in 1894, confined himself to the eye in the year 1897 in Asheville.

The year 1899 saw Dr. H. H. Briggs begin his work at Asheville.

The first year to see an addition of more than one to the ranks was 1900. Dr. C. W. Banner began at Charlotte but settled himself for good at Greensboro soon after. Dr. E. R. Russell was also in Charlotte first, moving ten years later to Asheville. Dr. Norton began at Asheville also. In 1901 Dr. J. H. Drake, Jr. went to the same city.

In 1902 Dr. A. H. Whisnant opened his office in Charlotte and in 1903 Dr. W.

W. Sawyer in Elizabeth City.

In 1904 Dr. R. V. Brawley began in Salisbury and Dr. Louise A. Merriman in Asheville, our first woman. In 1915 she gave up practice, married and is now Mrs. Perry of Winston-Salem.

In 1905 Dr. R. J. Teague gave up general for special practice in Roxboro and Durham. Dr. J. H. Honnett moved to Wilmington, where he now restricts himself to the eye.

There were in 1906 R. D. Jewett, Winston-Salem; J. S. Lafferty, first at Concord, now Shelby; Joel Whitaker, at Raleigh till 1914, now Indianoplis.

The next year brought R. G. Buckner to Asheville, T. W. Davis to Winston-Salem, J. M. Lilly to Fayetteville, J. G. Murphy to Wilmington, and J. B. Wright to Lincolnton, the last moving to Raleigh in 1914.

In 1908 B. W. Fassett began in Durham, S. E. Koonce in Wilmington and J. P. Matheson in Charlotte.

In 1909 H. W. Carter came to Washington and Dr. Lowder, the second woman, to Asheville.

The next year there was the largest addition yet made, eight: H. M. Bonner, New Bern, J. B. Greene, Asheville, J. A. McKethan, Fayetteville, C. N. Peeler, Charlotte, R. W. Petrie, Charlotte, T. C. Quickel, Gastonia, M. M. Saliba, Wilson, and O. P. Schaub, Winston-Salem.

The year 1911 brought five: R. S. Cauthen, Charlotte, M. C. Horton, Raleigh, S. D. McPherson, Durham, J. H. Tucker, Charlotte, and H. A. Wakefield, Charlotte.

In 1912 there were only two: B. B. Lloyd, Chapel Hill and M. L. Smoot, Fayetteville.

In 1913 the record was broken with nine: J. W. Austin, High Point, Mason Brawley, Salisbury, F. A. Carpenter, Statesville, O. C. Daniels, Goldsboro, W. H. Hollyday, Asheville, John LeGwin, Wilmington, H. T. Moore, Wilmington, W. W. Perdue, Asheville, and C. R. Reaves, Greensboro.

Four were added in 1914: M. R. Gibson, Raleigh, T. B. Henderson, Henderson, F. J. Pate, at first Winston-Salem, now Greensboro, and L. N. West, Raleigh.

For 1915 I have only three: J. M. Crawford, Asheville, J. G. Johnston, Charlotte, and Russell R. Beam, Lumberton; and for 1916 one, J. R. Perkins of Winston-Salem.

In addition to the above I know of two others, but their year of entrance on special practice I have not learned: W. P. Reaves, of Greensboro and R. L. Savage, of Rocky Mount.

Of the sixty-four thus far mentioned two have retired, one has left the State and three have died: Dr. Norton, Dr. J. H. Drake, Jr. and Dr. R. S. Cauthen.

This leaves fifty-seven who are understood to devote themselves now exclusively to our special work and there are doubtless more.

There also at present on our provisional roll of membership in this section on the Eye, Ear, Nose and Throat twenty-one men who pay special attention to these subjects but who do not confine themselves entirely to them. They are as follows:

W. S. Anderson, Wilson; F. J. Garrett, Rockingham; E. S. Warwick, Morganton; H. Brantley, Spring Hope; W. C. Martin, Mocksville; L. E. Norfleet, Tarboro; B. K. Hays, Oxford; H. C. Menzies, Hickory; J. M. Parrott, Kinston; C. J. Sawyer, Windsor; I. M. Hardy, Kinston; J. H. Shuford, Hickory; M. A. Royall, Elkin; J. C. Dye, Statesville; O. O. Kofer, Edward; S. P. Bass, Tarboro; J. W. McConnell, Davidson; L. N. Patrick, Gastonia; R. L. Pittman, Fayetteville; C. H. Hemphill, Drexel; H. L. Sloan, Lincolnton.

If I am not misinformed all of these are still engaged, at least to some extent, in other professional work. Yet we wish it distinctly understood that all of them, and any others whose names we have not been able to get, are cordially welcomed as eligible members of the section, on an absolutely equal footing in every respect with those who are strictly specialists and nothing else.

In conclusion I would say that it is shown that there are at least seventy-eight men who are now at work in the State, and who should be members of the Section. Most of them are men of ability and zeal. The future is bright and with the interest shown by the present attendance there is no need of an inspired prophet to foresee success in the course in which we have set out.

SCIENTIFIC RESEARCHES INTO THE CAUSES OF ALCOHOLISM AND INEBRIETY.

By T. D. Crothers, M. D., Hartford, Conn.

One great fact has been established by accurate laboratory and clinical research, viz., that the physiological action of alcohol on the cell and tissue is that of an anaesthetic and depressant, and not a tonic or stimulant. This has been accepted by the profession generally, and while it revolutionizes the previous theories, explains in some degree why alcohol is so fascinating.

Beyond this, there is a vast range of causes producing alcoholism and inebriety that are practically unknown. All remedial and restorative efforts are based on the theory that alcohol is the special and particular cause of all the degenerations which follow from its use.

Careful studies of individual cases show this to be untrue; also that in many instances alcohol is only a symptom. It may be a complicating drug intensifying unknown conditions that were latent before. It may be a specific poison localizing in certain organs. It is also cumulative, and associated with the most complex neuroses.

The causes that impel men to drink have never been studied scientifically. The literature up to the present is a confusing mass of theories and opinions unverified.

In this unknown region there are innumerable questions like the following: Why are certain periods of life more favorable for the outbreak of the craze for alcohol than others? Why does the desire to drink break out suddenly in diverse conditions, and then subside from causes inadequate to explain the change? What is the explanation of the eact periodicity of these drink excesses that are as certain as the rise and fall of the tide? What are the causes in surroundings and codnitions of living that provoke these paroxysms? Why do men drink after injuries, diseases, shocks, losses, disappointments, business reerses and great successes in life? What degenerations are transmitted from the parents to the children that create susceptibility or immunity to the effects of alcohol? Why are some persons able to drink in so-called moderation for years ,and why do others quickly become diseased and die? Why do some men drink in early life, then abstain, and in middle or later life turn to alcohol again and drink until death? Why are some persons susceptible to the contagion of surroundings and companions, while others are immune? What physical and psychical causes produce the drink craze?

These are some of the unknown causes and conditions which have never been studied with scientific exactness. One of the most prominent and widely accepted explanations is the so-called moral cause. Physical conditions are considered results and not causes.

A Research Foundation has recently been organized at Hartford, Conn., for the purpose of making an exact scientific study of these questions. It will be endowed and become a permanent work. Preliminary studies have already begun, and practicing physicians from all parts of the country are appealed to for the records and histories of cases which will be compiled and tabulated for the purpose o fdetermining the laws which control and govern them.

This is the first scientific effort to take up the subjects of alcoholism and inebriety and determine the causes which produce them outside of alcohol. Science has shown that these conditions are governed by exact physical and psychical laws, which if known and understood would indicate the most practical means and measures of reilef.

The Foundation will be practically a laboratory or clearing-house, where persons can come for examination, counsel and advice. To a large class of persons who want something more than pledges, appeals or sanatorium treatment, this will open a new field of means and measures for relief that will be most welcome.

Correspondence is earnestly solicited from the profession.

PLACENTA PREVIA AND TREATMENT BY CESAREAN SECTION.*

By A. C. Campbell, M. D., Obstetrician to Rex Hospital, Raleigh, N. C.

Report of Case.

The placenta is said to be previa when it is attached to any portion of the lower uterine segment, and since dilatation of the segment is necessarily followed by hemorrhage from separation of the placenta, the condition is sometimes called unavoidable hemorrhage. Hemorrhages of pregnancy in the first months are usually due to abortion, menstruation, or lesions of the cervix, and are not profuse. In the last three months they are almost always due to a premature detachment of a normally or abnormally inserted placenta.

Frequency.

The frequency of placenta previa may be estimated at about 1 in 1200 labors. It is three to six times more common in multiparae than in primiparae, and is more often met with in the working class. Multiple pregnancies, furnish four times as many cases of placenta previa as do single pregnancies, and women beginning to bear children late in life are liable to placenta previa in subsequent pregnancies.

Etiology.

Among the various causes which may result in faulty attachment of the ovum

*Read before the North Carolina Medical Association, Durham, N. C., April 20, 1916.

are conditions leading to enlargement and relaxation of the uterus and to changes of shape, that is, multiple pregnancy and uterine malformations; also conditions leading to changes in the uterine mucosa, as endometritis, abortion and tumors. A diseased endometrium is probably the fundamental cause.

Varieties.

In placenta previa centralis the placenta covers the lumen of the os after dilatation is complete. This form is very rare, and the placenta is placed to a great extent to one side of the uterus, especially the right side. In placenta previa partialis the placenta partially covers the lumen of the os after complete dilatation, and there is more placental substance on one side of the os than on the other. In placenta previa lateralis or marginalis the placenta does not reach beyond the margin of the internal os. This is the most common form. These several varieties can be arranged again in two groups, complete and incomplete. The complete variety comprises the placenta previa centralis while the three varieties remaining are embraced under the term incomplete.

A woman with placenta previa may begin to bleed as early in pregnancy as the second month, but the first hemorrhage usually occurs in the trimeter. There is a sudden gush of blood often without apparent cause and without pain. The bleeding commonly recurs in increasing amounts and at decreasing intervals as pregnancy advances. The cause of the hemorrhage during pregnancy is the impact of the embryo and fetus upon the placenta the pressure of the ovum upon the lower uterine segment, and the imperfect attachment of the placenta in certain areas to the uterine wall. The first hemorrhage may occur in labor, which may be ushered in by a profuse outpour of blood, even in lateral placenta previa. Ordinarily, however, the greater the bleeding during pregnancy, the more likelihood is there of serious hemorrhage in labor. The bleeding in labor is easily explained. The placenta is attached in that portion of the uterine cavity which must be dilated to allow the advance of the presenting part. The stretching of the uterine walls expands the area of the placental site, and necessarily detaches the placenta, while the reversal of the ordinary mechanism of placental detachment keeps the gaping mouths of the torn utero-placental vessels wide open, and allows the blood to pour from them till the hemorrhage is checked by syncope, by thrombosis, by the pressure of the presenting part, or by a vaginal tampon. The bleeding is usually most profuse just as the uterine contraction passes off. During the height of the pains it may cease altogether, from the pressure of the presenting part or of the intra-uterine contents upon the placental site.

Symptoms.

The principal symptom is hemorrhage. It occurs without warning and varies from a few drops to an amount sufficient to produce grave anemia. It occurs at any time of pregnancy, from the beginning of the third month to delivery; it is most frequent in the last month, though it may be looked for after the sixth month. The more nearly central the placenta, the earlier will be the occurence of hemorrhage. During pregnancy the amount of blood lost is not so apt to be dangerous, but at the completion of gestation or during the commencement of labor the loss of blood may be profuse, the constitutional symptoms of hemorrhage supervening, and within a few minutes the patient's life may be placed in great danger, death occurring within a few moments of the beginning of the hemorrhage.

On digital examination the cervix is found enlarged in all directions, the vaginal vault is soft and boggy, the presenting parts cannot be plainly felt. Finally the maternal face of the placenta or its margin is felt over the internal os.

Treatment.

This is still an open question. Dr. Zinke of Cincinnati says: "Those who advocate abodminal cesarean section in every case of placenta previa are as mistaken as those who will not admit that hysterotomy is ever necessary in this condition." The great majority of cases of placenta previa, it is true, may be favorably treated by the use of the tampon, the rubber dilator, version or slow extraction of the child, so far as the mother is concerned—not so with the child; the majority, or at least a very large percentage of the children perish under this treatment. He also says that abdominal hysterotomy is indicated in every case of placenta previa in which the hemorrhage must be controlled, no matter what the condition of the cervix, the character of the child's presentation or the location of placental implantation. If the placenta has developed normally the hemorrhage from a placenta previa centralis may be readily controlled if the os is dilatable, and the presentation vertex or breech, but hemorrhage may be difficult or impossible of control in a case of placenta previa lateralis, marginalis or partialis, if the placenta is abnormally developed,

(for instance when the chorionic villi have penetrated the muscularis) and when, in connection with this condition, the cervix is elongated or the os very rigid, and the presentation of the child such that a correctly placed tempon or the insertion of a rubber balloon will neither control the loss of blood, nor cause obliteration of the cervix or dilatation of the os. A child delivered through the abdomen in a case of placenta previa has a far better chance for life than one born in the same manner in eclampsia."

Case Report.

Well nourished white woman weighing about 125 pounds, age thirty three, occupation, house-hold duties; mother of five children; all labors normal, had no miscarriage; family history negative.

Personal history: Barring the ordinary diseases of childhood she had always enjoyed good health, prior to and during the present pregnancy, until the ninth month, when albumin was present in her urine for the first time. It grew worse and she complained of headache and seeing sparks before her eyes. She was immediately put to bed and placed on milk diet and salts. In about ten days she felt as well as usual, urine contained only a trace of albumin, and she went about her household duties as usual. Few days later was called to see her about 6 p. m. She said, "Doctor I am bleeding to death." She was preparing supper at the time and blood gushed from her all at once without any warning. She was in a cold clammy perspiration, feeling faint and calling for air.

Examination admitted index finger, placenta felt covering the os. No membranes to rupture could be found. Examination caused more bleeding. She was hurried to Rex Hospital with the intention of doing a bipolar version. After she was anesthetized, and on introduction of index finger she began to bleed so profusely I packed her as tight as possible and did a rapid cesarean section. Child cried out as soon as bag of waters was ruptured and four loops of cord removed from its neck. It seems impossible to secure either a living baby or mother by the vaginal route because of the repeated loss of blood. It certainly would have meant death to child in this case on account of the number of loops of cord around neck. The cervical opening was completely covered with placenta which was very easily detached. The patient was in such an exsanguinated condition normal salt solution was given intravenous and under the breast. Both mother and child made an uneventful recovery.

THE NECESSITY OF CYSTOSCOPIC EXAMINATIONS IN THE DIAGNOSIS OF UROLOGICAL LESIONS: ILLUSTRATIVE CASES.*

By Richard N. Duffy, M. D., Newbern, N. C.

The information which one may obtain with the cystoscope in urological work makes it today an indispensable apparatus, and it should be classed along with the microscope as an instrument of precision. There is a vast deal of "slip shod" work which is being done in diseases of the urinary tract, not because we do not know how to treat these diseases but because we cannot make clear cut diagnoses. The cystoscope takes us out of this field of obscurity and guess work and brings us to the realm of fact. We obtain positive information, through its use, of pathological processes and we may come to definite conclusions for or against operative proceedures.

We find that the cystoscope has its greatest field of usefulness in determining the origin of pus or blood in the urine. When we consider that the urinary tract consists of a number of parts all connected by a system of tubes and that the urine represents the collective products of all these parts we realize how futile it is to attempt to exactly localize the origin of haematuria or pyuria by an examination of the urine alone; and when we consider the variability of the symptoms of urinary diseases we are still at a loss to localize the lesion even when we connect up the symptoms with the urinary findings. Elaborate instructions were formerly given for determining, for example, whether pus or blood came from the bladder or kidney but in many cases we find that this is impossible without the cystoscope. We were told that a pyuria with an acid urine was due to kidney involvement and one with an alkaline urine to a bladder lesion. Since the introduction of the cystoscope and ureteral catheter it has been found that this advice is misleading, and that it is frequently impossible to locate the origin of the pus without cystoscopy and ureteral catheterization, even when the symptoms may, for example, point definitely to a cystitis.

We have thought that it was possible to tell the origin of haematuria by the color of the blood, by the admixture of the blood with the urine and by the appearance of the clots. Here again the cystoscope reveals the fact that bleeding from the bladder and bleeding from the kidney may be indistinguishable by urinary examination alone.

The cystoscope with the ureteral catheter likewise finds a field of usefulness in the determining of the origin of puzzling cases of increased frequency of urination. An early tuberculosis of the kidney may first make itself known by this increased frequency, and when we realize that in 90 per cent. of the early cases the disease is limited to one kidney, the importance of early cystoscopy and ureteral catheterization is clearly seen. Certain cases of retention as those due to central nervous causes, defects in the bladder musculature, to foreign bodies in the bladder, to prostatic hypertrophy or median-bar formation all require cystoscopy for definite diagnosis. Likewise incontinence, due as a rule to paralysis or relaxation of the sphincter, to overdistention of the bladder or to spasmodic contraction, may require the cystoscope for determination of the exact etiology.

The source of a bacteriuria or pneumaturia, large numbers of crystals or parasites may be ascertained by cystoscopic examination supplemented by ureteral catheterization.

A most important field of usefulness of this instrument is the determination of the functional activity of the kidneys and one should never do operative work on the urinary tract without obtaining this information beforchand.

Occasionally we are able to discover with the cystoscope and ureteral catheter the presence of only one kidney or there may be a double ureter on one side or the other. By the use of the wax tipped catheter we are able to locate ureteral stones more definitely than we can with the X-ray and frequently also the presence of stone in the pelvis of the kidney.

With this short survey of the cystoscopic field before us I will present to you briefly the following cases which have occured in my work in which I have found the cystoscope invaluable:

CASE I.—Mr. L., white, aged 30, married, called me hurriedly complaining of pain in right iliac region and right loin. Another physician had seen him who made a diagnosis of appendicitis. There was definite tenderness at McBurney's point. There had been no vomiting. The temperature was normal, and the pain was cramp like. I suspected ureteral calculus from the character of the pain and the normal temperature. I obtained a specimen of urine and found that Heller's test showed a slight trace of albumin. Microscopic examination of the centrifugal sediment revealed a number of red blood cells, no casts and no pus cells. Macroscapically the urine did not show blood. Cystoscopic examination revealed a normal bladder except for slight "pouting" of the right ureteral orifice. A catheter introduced in the right ureter met an obstruction one third up. The catheter on the left side passed easily to the kidney. The urine from the right ureter contained red blood cells, that from the left was normal. A wax tipped catheter on the right side revealed a scratch after passing the point of obstruction and being withdrawn. My suspicion of ureteral calculus was therefore confirmed by absolute facts and I was saved the embarrassment and the patient the discomfort of an unnecessary appendectomy.

CASE II.—Mrs. C., white, married, age 35, was eight months pregnant. She suddenly began having very severe chills followed by very high temperature. It was at first thought by her attending physician that she had malaria. The chills were not controlled by large doses of quinine. There was no complaint of any pain in either kidney region and only occasional burning on urination. I saw her in consultation. Physical examination was negative except for obvious pregancy and high fever. An examination of the urine revealed pus. Pyelitis was suspected and owing to the severity of the conidtion induction of labor was decided upon. Fortunately, however, labor pains began spontaneously soon after my visit and the patient was delivered easily of a healthy child. The chills and fever did not cease. The patient was therefore cystoscoped and both ureters were catheterized. Pus was found coming from both kidneys. The diagnosis of acute pyelitis was confirmed. The bladder was normal except for slight trigonitis. The pelvis of both kidneys was lavaged with a 1-500 silver nitrate solution and the chills and fever promptly stopped. The pelvic lavage with the nitrate solution was continued at gradually lengthening intervals until the urine from both sides was perfectly normal.

CASE III.—Mrs. T., white, married, age 45, had been operated on a year previously for carcinoma of the body of the uterus with extension to the adjacent bladder wall. A portion of the bladder wall was removed at the time of operation and the defect closed with silk sutures. She now complained of frequent and painful urination with occasionally a small amount of blood at the end of urination. The urine contained blood and pus. The symptoms were worse when the patient was up and about. Stone was suspected but the possibility of malignant recurrence in the bladder was thought of. Cystoscopy revealed a large

phosphatic calculus attached to the bladder wall around the silk sutures originally introduced for closure of the bladder. This stone could have been diagnosed with a searcher but I would have remained uncertain whether or not there was a cancerous process in addition.

CASE IV.—Negro woman, single, age 25, was referred to me with a history of frequent and painful urination of a few weeks duration and the passage of a large amount of blood. Cystoscopy revealed a solitary ulcer of the bladder midway between the fundus and the posterior wall. Both ureters were catheterized and the urine from the kidneys was normal. The condition cleared up in two weeks under bladder instillations of five per cent. argyrol and urotropin internally.

CASE V.—Mrs. McS., white, married, age 40, was suddenly seized with painful urination and passed blood. She had never before had any bladder trouble. Her appearance suggested tuberculosis. Cystoscopy revealed a large solitary ulcer on the posterior wall of the bladder and an intense injection of the trigone. There was no evidence of tuberculosis. The urine from both kidneys was normal. The condition yielded readily to urotropin internally and instillation of five per cent. argyrol into the bladder.

CASE VI.—Miss P., white, single, age 35, complained of pain in left costovertebral angle, left loin and left hypochondrium. Pain was constant, a dragging aching character. At times the pain was quite severe. There had been no colic. She had never passed any stone or gravel or blood. She occasionally had fever in the evenings and at times night sweats. She had lost some weight, not a great deal. The pain had been present for a year constantly and she had been treated for indigestion and rheumatism. A specimen of urine showed a small amount of pus. Renal stone being suspected both kidneys were radiographed but were negative for stone. Cystoscopy showed slight trigonitis and puffiness and redness about both ureteral orifices. Ureteral catheter passed readily on right side. Catheter on left side met an obstruction about 2-3 the way up and this was passed with difficulty. Pus was found coming from both kidneys. The phenolsulphonethalein test came through on the right side in five minutes and on the left in twelve minutes. The right kidney secreted about four times as actively as the left. A wax tipped catheter passed up beyond the point of obstruction on the left side showed no scratch. No tubercle bacilli were found in the urine. From the evidence given by the thalein test and also the variation in activity of the kidneys it was assumed that the left kidney substance had been damaged. However, it was decided to try pelvic lavage with 1-500 nitrate of silver solution. The pus has now cleared from the right side and is much less on the left. The pain has been much relieved. Injection of the left kidney pelvis gives her at the time an exacerbation of pain in locations similar to that of the pain originally complained of.

CASE VII.—Mrs. T., white, married, age 60, complained of a tumor in right side. This tumor had appeared rather rapidly. It was globular, moveable, quite tender. It extended back to the loin and up beneath the ribs in the situation of the kidney. The patient gave a history of having a moveable kidney for years and at times had attacks of typical Dietl's crises. The present tumor was thought to be a hydronephrosis. Cystoscopy revealed a normal bladder. The ureter catheter on the left side passed easily to the kidney. The urine on this side was normal. The catheter on the right side met an obstruction near the kidney and could not be passed further. Urine dropped from the catheter in a constant flow, from the left side it came in normal spurts. The urine on the right side contained pus. A phenolsulphonethalein test came through on the left side in 24 minutes. None showed up on the right side at the end of 30 minutes. X-ray of the kidney revealed no stone. The size of the tumor decreased perceptibly after the catheterization. The diagnosis was pyonephrosis and it was desirable to remove the right kidney. However, the thalein test warned against this and this judgment proved correct as the patient died uraemic a few months later.

CASE VIII.—Mrs. D., white, married, age 40, was referred for examination for frequent and painful urination. There was a marked phosphaturia. Cystoscopy revealed a normal bladder mucosa and urine from both kidneys normal. The bladder wall was seen to drop downwards abruptly passing back of the trigone. A diagnosis of retroflexion of the uterus was made from this appearance of the bladder and pelvic examination later proved this to be correct.

CASE IX.—Mr. H., white, single, age 23, came in complaining of severe pain in left kidney region about one month previously, after which there appeared rapidly a tumor in left side. Since this time the tumor had persisted and there was a dull aching pain. He had never passed any blood or stone in the urine. A year

previously he had been operated on elsewhere for what seemed to have been tuberculosis of the left testicle. The testicle was removed and following this there had been a urethral discharge of pus for a number of weeks. There had been recently slight elevation of temperature in the evenings and occasional night sweats. He had lost much weight. On examination the patient was seen to be much emaciated. A kidney tumor the size of a cocoanut could be easily seen and palpated on the left side. It was quite tender. The urine was normal. X-ray of the kidneys and ureters was negative for stone. An attempt was made to pass the cystoscope into the bladder but it was found that he had an exceedingly small meatus. Accordingly a meatotomy was done. Back of this were found a series of strictures in the anterior and membraenous urethra. These were gradually dilated by internal urethrotomy and the passage of sounds and dilators over a period of two weeks time. The cystoscope was then introduced and the bladder was found to be considerably inflamed about the trigone. The right ureteral orifice was normal. The catheter passed easily to the right kidney and the urine coming from this side was normal. The left ureteral orifice was swollen and reddened. The catheter on this side met an absolute obstruction about 2-3 the way up and no urine could be obtained on this side. The "thalein" test came through on right side in five minutes. The left ureter was injected with a 10 per cent. Argyrol solution and another X-ray taken. This solution passed by the point of stricture up to the pelvis of the kidney and the radiograph showed very clearly a hydroureter and a hydronephrosis. The previous history of tuberculous epididymitis coupled with the finding of stricture of the ureter, which in most cases in young subjects means tuberculosis, lead to the diagnosis of tuberculosis of the left kidney. A nephrectomy was decided upon and this proved the dignosis to be correct in so far as the hydronephrosis was concerned. The kidney, however, showed no evidence of tuberculosis. Nephrectomy was done, as the kidney substance was apparently too much damaged to functionate properly. Alongside the hydronephroctic sac there was found a rectroperitoneal tumor which was later found to be sarcoma. This had pressed upon the ureter causing the obstruction.

CASE X.—Mrs. C., a Jewess, married, age 40, came in complaining of painful and frequent urination which began five days previously. She had passed some blood from the beginning of the attack. She now had very little pain. She had never had any bladder trouble before. The urine contained microscopic blood. The Nitze cystoscope revealed no abnormality. Suspecting that there might be some lesion close to the internal orifice which would not show up with the Nitze cystoscope this was withdrawn and a Buerger Cysto-urethroscope was introduced. With this instrument there showed up very beautifully a papilloma of the neck of the bladder near the internal urethral orifice. This patient was seen just a few days ago and she is to return this week and the tumor will be fulgurated.

These cases illustrate quite well the very great importance of this cystoscopic work. We are certainly not doing the right part by our patients unless we examine them thoroughly or have them examined thoroughly, and without the cystoscope in urological cases this is impossible.

THE TREATMENT OF MORPHINE HABITUES.*

By W. C. Ashworth, M. D., Medical Director, Glenwood Park Sanitarium, Greensboro, N. C.

The treatment of morphinism belongs to the most painful chapters of medicine. It is signally unfortunate that so little study, observation and effort to interpret physical manifestations has been given to those unfortunates suffering from narcotic addiction. We have neglected their disease in its origin and subsequent progress and have formed our conception of them from fully developed conditions and spectacular end-results. I have seen them during and after our fruitless efforts to relieve them; their tortures and poor physical conditions over-come their resolutions until they plead for and attempt to obtain surreptitiously more of the drug. I have seen them exhausted, starved with locked up elimination, toxic from self made poison of faulty metabolism, worn with the struggle of concealment and hopeless resistance; semi-responsible beings, at present are soon to be inmates of an Institution offering custodial care. Most of our literature pictures them as weak, minded deterioated wretches, mental and moral derelicts pandering to morbid sensuality, taking a drug to soothe them into dream states and give them langurous delight, regarded by the laity and many times the profession, as so depraved that their rescue is impossible, and often times un-

*Read before the North Carolina Medical Society at its recent meeting in Durham, N. C.

worthy of its attempt.

We have ignored or mis-interpreted intense physical agony and symptomatology and regarded failure to abstain from narcotic drugs as evidence of weak will power or lack of desire to forego morbid pleasures. We have prayed over our drug addicts, reasoned with them, exhorted them, imprisoned them, treated them as insane and made them social outcasts, and have either refused them admittance to our hospitals or turned them out after in-efficient treatment, with their addiction still fastened to them. They have fully realized our failure to appreciate their condition and to offer help for it, and have after desperate trials with quacks, charlatans and exploited "cures" finally accepted their slavery and by regulations of their drug and life, maintained unsuspected as nearly normal existence as possible, or broken in mind and body, impoverished financially, have given up the struggle. A number of such cases are concealed as family skeletons in the home, others are in Institutions diagnosed as cases of mental diseases due to drug action or habit deterioation, based on in herent lack of mental and moral stamina.

I have at last realized after nearly ten years experience in the treatment of drug habitues that I am dealing with men and women who are sick of a definite diseased condition, and am finally convinced until we recognize, understand and treat this condition and remove the stigma and moral taint from the cases in which it does not exist, we will make very little head-way toward the solution of our problem. It is a fact that narcotic drugs do afford a pleasurable sensation to many of those not fully addicted to their use, and that this effect has been sought by the mentally and morally inferior purely for its enjoyment, and in the same spirit that these individuals yield themselves to other morbid excesses and indulgencies. This class, however, is greatly in the minority and self eliminating, and I might add, seldom present themselves for treatment.

I have been endeavoring to search out and explain from the study of the individual addict and his corroborated testimony, and from clinical observation of his disease and the phenomena and symptomatology peculiar to addiction and to formulate a theory for their production which would give a rational basis for therapeutic effort.

I find in the literature on narcotic drugs very little as to their action or as to manner of production of symptomatology in those habituated to their use. This experience has been paralleled by some of my patients, for instance, physicians of high standing, for many years, secret addicts, and consequently zealous searchers for any information as to their affliction which might offer them hope of a cure.

The literature of narcotic addiction is notable for a persistent effort to interpret drug action in an addict by its observed action in normal men and animals, attributing to supposed enjoyment, plus direct action of the drug, plus hypothetical mental and moral degeneration, the clinical picture of chronic drug addiction. I have observed that there is a class of drug habitues, if not a majority, in whom there is no mental or moral inferiority, often men and women of high ideas and worthy accomplishments whose knowledge of narcotic administration, is in many cases first gained by withdrawal agonies, following the cessation of medication, who have never experienced pleasure from the drug, normal, mentally and morally, therefore, unquestionably victims of a purely physical affliction.

It has been my observation that routine treatment for all cases of any diseased condition means unnecessary suffering during the course of the treatment and vitiation of the results in many, if not a majority, of those treated. Narcotic addicts are no exception to this rule. There must be in each case, comprehension of intrinsic elements which accord with the clinical facts and finally a keen appreciation of their relative importance, and there must be competent interpretation of symptomatology if we are to place our efforts on a rational basis and modify our treatment to the needs of the individual patient. We must take into consideration the idiosyncrasies, temperament, moral and physical stamina of the individual if satisfactory results are to be obtained from our treatment. In other words the personal equation of the patient must always be given due consideration as well as the influence of immediate environment. Drug cases are often extremely complex and difficult to analyze, therefore, for adequate treatment, the symptoms and their origin must be appreciated as they occur in the individual patient. We have not yet reached the satisfactory solution of our treatment of narcotic addiction. Any method of treatment which is open to scientific investigation and which can be carried through in any hospital where the usual dietitic and hygienic control over patients is exercised, therefore, deserves consideration.

I have been able during the last few months to obtain better results, with far

less discomfort to the patient by substituting Pantopon or opium for the morphine and finally withdrawing the Pantopon. It has been my observation that the nervous system of most morphine patients gives up the Pantopon far less reluctantly than the morphine.

My method is based upon the well known opium treatment of melancholia, which depends on doses of 18 grains or more of pure opium, which has been shown can be withdrawn without any difficulty if the withdrawal is done tentatively. The first question, therefore, to be answered, is whether it is possible to balance by means of opium those symptoms in the withdrawal of morphine which represent the greatest difficulty in the treatment of morphine habitues, or whether it is possible in treating morphinists to supplant morphine by opium, which is, as above stated, more easily withdrawn. I have observed that morphine can be withdrawn without the aid of opium within several weeks by the gradual reduction method, but the results obtained are not very satisfactory as a whole, as evidenced by the fact that the patient suffers considerably and the temptation to deceive is, therefore, greatly increased. Sometimes, especially with cases of a very nervous temperament, the patient is so greatly weakened physically and mentally that the condition of the patient during the final withdrawal period is far from satisfactory. In the interest of the patient and for his own protection it is, therefore, generally necessary that he remain in an Institution for a considerable period of time after the completion of the withdrawal treatment. I have been forced to observe, however, that conditions are found to be considerably different in those cases where morphine has been replaced by opium. The doses of opium induce a feeling of improved condition and well-being in the patient, a fact which is not generally known. The appetite improves, with a consequent increase in weight and strength, and there is no desire for morphine. This improved condition continues under the gradual reduction of the opium dosage. Neither the patient nor I have any cause to be dissatisfied with this plan of treatment. If the opium is withdrawn too rapidly the psychical equilibrium of the patient is often impaired, and the typical withdrawal symptoms, such as aching of the limbs, pains in the abdomen and back accompanied by insomonia are characteristic.

When I first became acquainted with Pantopon I was able to convince myself that it possessed the therapeutic activity of opium and notably its comparatively easy withdrawability and that it possesses some most essential advantages over opium; namely, the advantage of hypodermic administration and the possibility of rapid increase of the dose to a very large dosage. These advantages can all be made good use of in the withdrawal of the morphine.

In five cases of very severe morphinism, two of them complicated by asthma, exceedingly successful results were obtained by the use of Pantopon. The possibilities of giving large doses of Pantopon makes it possible to supplant the morphine immediately with the Pantopon even in cases where the daily dose of morphine has been as high as 30 grains daily. The treatment to be most successful implies that the patient be kept quietly in bed and fairly well nourished with plenty of milk and such other bland and unirritating foods as are found to be most easily digested. I have also observed that the frequent use of hot baths for the patient tend to greatly mitigate the aching of the limbs, nervousness and the many much dreaded withdrawal symptoms. In view of the fact that a large percent of the suffering of the drug patient is purely psychical it is best for the patient to be entirely ignorant of the contents of the hypodermic. I have seldom been able to successfully treat the morphine patient who was fully cognizant of the nature of medicine given him, dosage, etc. Strong mental suggestion is, therefore, urgently indicated.

The appetite is not influenced unfavorably by Pantopon. The undesirable morphine-euphoria does not occur as with the slow withdrawal of morphine. I have also observed that Pantopon does not constipate, but rather counterbalances the unpleasant withdrawal diarrhea. The condition of these morphinists to whom I have treated with Pantopon convinces me that they were actually cured. I do not doubt, however, that further improvements of the method are possible. I have found for instance, that by giving small doses of Scopolamin, along with the Pantopon, the use of hypnotics become unnecessary.

Resume:

In the treatment of morphine habitues, morphine can be replaced without difficulty by the Pantopon, hypodermically and internally which can be withdrawn with far less discomfort to the patient and greater satisfaction to the physician than morphine.

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MEDICAL PREPAREDNESS.

In the startling revelations of the want of arms and the various appliances requisite for army service in the field, the untrained men and untrained officers, the fact has dawned that medical men for this service are equally wanting and unprepared.

General Wood has announced that a medical training camp of two weeks duration, will be held at Plattsburg, N. Y. and has invited all medical officers to attend if possible.

This is a very delicate hint as well as a distinct intimation that the surgeon in the camp, needs training as much as the private. The Medical Department at Washington sent Surgeon-General Harrington down to the Border austensibly to look after general affairs, but literally to put the many young surgeons in training, who were suddenly called into service.

He writes very entertainingly in a recent publication of the excellency of the medical men who have gone out with the troops, and then intimates in a very genteel way that the duties they are called on to preform, require a much larger training, than anything they have had before, also that some of these surgeons are very likely to fail in this respect.

While correspondents and reporters are claiming that these large volunteer armies have so far suffered very little from the usual camp diseases, (this they ascribe to the newer science of sanitation), it is evident that this is not the exact state of affairs. Various disorders have already begun to appear, which are ascribed to water, diet, heat and other causes, and it is probable that about the same ratio of sickness and incapacity will follow, unless through the vigilence of the medical officers who should have a larger sanitary training, which will come in the course of time.

Most of the surgeons among the volunteers are young men who have been very well trained in the general principles of medicine, but have had little or no instruction concerning the many problems which grow out of camp life and general campaigning. If they are exceptionally clever students, and realize the situation, they will soon become valuable surgeons. If they are dull and stupid, it will take a long time before they will ever become adapted for the work they are doing.

The surgeon generals, in charge of the State Troops are often political doctors who receive their appointments as favors for services rendered, and in times of peace have little interest in the training of medical men under them. This will evidently change. Medical men who propose to take up Army life in state militias must be trained, the same as the officers.

One of the great benefits that will come from the gathering of troops on the Border, will be the training of medical men in sanitary matters. They are not likely to see much surgery. If they do, it will be of a minor character, and of very little value in actual life, but the knowledge they will acquire, of sanitary and preventive medicine will be invaluable.

They will come home and put this in practice in their various neighborhoods.

The Surgeon-General is to be most highly commended for his efforts to train the medical department, and make it more or less prepared for whatever emergencies may occur, and we shall watch this phase of preparedness with increasing interest.

C.

SURGICAL TRAINING IN THE WAR.

Two very competent medical men were enthused with the hope that experience on the battle fields and in the great hospitals in France would give them a preeminence, not to be attained elsewhere.

After two years experience they have returned with impaired health and very pessimistic conceptions of the actual skill and knowledge they have attained. The first-aid-to-the-wounded on the front was a rare novelty at first, but later, as the results of what they had done could not be followed up, they declared that it was a kind of a city ambulance service, very unsatisfactory.

In the hospitals in the rear, the operations were generally about the same, and except in the American hospital, where plastic operations had been developed to a very high degree, there was very little that was new and practical. Many unusual wounds followed unusual courses and the treatment was more or less novel, and the results of death or healing were equally unusual and startling. Here again, the same condition existed, of inability to follow the progress of the cases, who were moved from one hospital to another and the surgeon had rarely an opportunity to follow his observations. His knowledge was scrappy and incomplete and very indefinite.

They both declared that outside of plastic surgery and major operations, there was little new in the surgical field. Of course the sanitary part and the hospital care was very highly developed, but this development was to meet extraordinary conditions, and could hardly be applied in civil service.

Both of these men had large experience which they declared very unsatisfactory in many respects, and both were subject to great strain and peril on the front. One of them in a lecture advised all medical men who had any kind of practice to remain at home, and not attempt to secure unusual knowledge in the hospital service of the allies.

C.

TOBACCO.

This plant is no longer considered a medicine, fortunately, its wide adoption among patients, and its extended and idefensible use as a narcotic by many sufficiently reflective physicians possibly makes a sufficient excuse for the writer to make some comments on the plant and its use.

A great deal of data has been accumulated by careful investigators to show that tobacco smoking is a hygienic as well as a social problem, demanding pissibly more attention than it has from those who value prophylaxis. Of course tobacco has a well known physiological action, it has been manifested during and after smoking, and may be stated as follows:

Tobacco depresses the higher centres of the central nervous system, especially those of imagery, perception, and association; it first irritates and then depresses the lower centres and the cord. The actual ability of the voluntary muscles is greatly reduced by tobacco, as has been early shown technically by many eminent physiologists. Of course it varies considerably with different individuals, the heart gradually manifests irregularity of action, which may be either centric or local in origin. It is well known that the continued and excessive use of this plant frequently brings on irritation of the optic nerve, with more or less amblyopia.

The user of tobacco, when he first begins to smoke or chew can recognize that the secretory alimentary glands are first stimulated and then very noticably depressed, there is obscure toxic interference with metabolism, especially in a young man. Nicotine is quickly absorbed and its elimination is carried on through the kidneys, lungs, and sweat glands. This continuous irritation through the kidneys and lungs frequently brings on a chronic nephritis or a chronic bronchial irritation, or inflammation.

It is a fact that all men recognize, that before major tolerance has been acquired by the prospective user, tobacco smoking produces all of the major symptoms of acute poisoning; altered vision, muscular weakness, nausea, severe vomiting, and great prostration. Its physical action only varies slightly from other habit forming drugs. When the user of tobacco has become so habituated as to escape acute effects, chronic manifestations slowly supervene; impaired sense of taste and smell; disagreeable emanations from lungs, mouth, and skin; mucorrhea and dyspepsia; cardiac palpitations, visual disturbances, muscles inco-ordination; weakening of the moral fibre, relative enfeeblement of the will, diminished sense of personal responsibility and social obligation, and it certainly produces, when used excessively, a low mental efficiency.

THE VALUE OF WOMEN'S CLUBS.

The gathering of two thousand four hundred representative women, which recently met in New York City, is significant of growing sex responsibility and the organizing power of women. They deal with the departments of public health in educational problems and home economics. This has aroused the chief interest of these thoughtful women.

The fact that the main topics of discussion in this great meeting were matters pertaining to public health and public welfare of both men and women in this nation, shows the interest that women are taking in these important matters, and in every community is certainly a public safeguard for every class of our people.

The Federation of Women's Clubs is becoming an educative force of the first magnitude in advancing public health, education, and that kind of educational training that is essential to national health preparedness. This federation has incorporated a wide field already in its activities, it has given its support to the work and efforts of the National Child Welfare Bureau; it initiated baby week; it organized and popularized the annual Clean up Week. Its campaign on social hygiene should be complimented, commended and recognized as one of its greatest accomplishments. The work that it has done to organize intelligent efforts to prevent tuberculosis is another of their great accomplishments. Its

advocacy for full term paid health officers cannot be recorded without our fullest approval. The great work that this organization is doing is the greatest developing force that the world has ever known. It has over two million active workers in this country; its organization is one of the largest, and I might say, doing the most good for humanity, that new exists.

NEUROLOGY.

There is a great increase in these strenuous times of all kinds of nervous diseases. The testimony of physicians who have practiced medicine for forty years is that there are vastly more cases of nervous diseases; more cases of insanity, and more "nervous prostrations" than used to be the case. To be sure, there are more people; but still these nervous diseases are out of all proportion to population. The present stress of business, intense nervous strain, and tension; the fast life of modern society; distracting and racking noises, and tumult of our large cities, so wears out both the physical and mental man that neurasthenia, and finally active insanity are getting to be alarmingly prevalent. Paresis is also becoming very common. If people could get back to the "simple life," good physical and mental soundness would be the rule, and not the exception. F.

GLEANINGS FROM A STUDY OF VACCINE THERAPY.

While the value of typhoid vaccine in the treatment of typhoid fever has not been determined, investigations along this line has opened new and definite fields for the study of all therapeutic values and actions.

Typhoid vaccine may be taken as an example of all drugs of an unknown value. The study of typhoid vaccine may be taken as an example of the study of all other remedies. The attitude of practitioners toward typhoid vaccine therapy represents their attitude toward all other therapeutic measures. This well known attitude of professional practitioners is the weakest link in the chain of scientific medicine, and provides the golden opportunity for its traducers and irrational poachers.

According to their various attitudes toward any individual remedy, practitioners may be divided into three camps. Two of the camps agree as to therapeutic value, but differ in their opinions regarding the properties of drugs and their mode of action; the third camp doubht or even deny the therapeutic value of the remedy that may be in question. But nevertheless these several camps agree that a multitude of medicinal substances, with which the individuals of each camp are more or less familiar, do possess therapeutic properties.

However, one camp of vaccine therapeutists use and recommend stock mixtures, declaring that vaccines and serums made from one type of bacteria has cured disease caused by organism sof another type; the second group claim a specific quality for each vaccine, and pin their faith only to the specific properties of the antogenous product; the thir camp, those who have tried and failed and the conservative who cling steadfastly to established measures, deny or doubt the efficiency of either product. Thus the house of Aesculapius is apparently divided; and the drugless healers being deceived by the appearance, are clamoring for possession.

Whether any, all or none of the vaccines prove to be of therapeutic value, the study of the vaccine problem has been wonderfully fruitful to the practitioner, for it has laid a solid foundation for the study of drug action and firmly established the principle: That the cure of any disease is brought about by some change in the tissues and secretions of the diseased body. An important point in both vaccine and drug therapeutic was settled when it was definitely determined that when vaccines were introduced into the tissues, that they acted, not upon a common center which sends impulses to the bacteriolytic apparatus of the body, and which, in response to certain stimuli, manufactures an increased quantity of the substance that destroys and eliminates pathogenic bacteria.

Leukocytes and antibodies are now recognized as the bacteriolytic substances in the blood. It is known that an increase of these substances follow both the oral administration of certain drugs and the injection of typhoid vaccine and other foreign proteids; and that the bacteriolytic power of the bacteriolytic subtsance corresponds to the state of nutrition. But we have yet to learn whether bacteriolytic substances, of full physiological amount and vigor, are capable of destroying any and all invading organisms; or if it requires numerous and special variations in the quality of the protective substances, in order that these substances may overcome the distinctive and peculiar ualities of each pathogenic germ. This is an important point; and if the secretions from the thyroid and suprarenal gland, or elsewhere, is the curative

and immunizing substance of the body, we should soon know whether each specific germ requires a specific bactericidal property for its destruction and elimination; or if the destruction and elimination of al lpathogenic invaders, is accomplished by an abundance of a non-specific but highly virile secretion. Any substance, whether it be a single remedy or a product of polypharmacy, that will cause the somatic structures to overcome a diseased process may rightfully claim the title of specific; either as a specific health restorer or as a specific germ destroyer, or both. There should be no room for therapeutic disputes when therapeutic results are secured; and most practitioners speak freely of their desperate cases and brilliant therapeutic successes. A better study of the developments and experiences in vaccine therapy should put the practice of medicine on a solid foundation and eliminate many of the petty discords in the several professional camps and schools.

The great question in specific and treatment is: What will bring about such changes in the tissues and fluids of a diseased body that that body will be restored to a healthy state. Should it prove that the treatment of infectious disease is but a matter of increasing the quantity of certain secretions, and that this increase may be brought about by a number of different remedies, the scientific treatment of disease would become a surprisingly sure and simple affair. But, on the other hand, should it prove that the cure of each morbid state requires some specific propetry in the indicated remedy, such as i ssupposed to reside in the autogenous vaccines, nothing could be more exacting and strenuous than the successful practice of medicine. For it is an etsablished fact that sooner or later every microbic disease becomes a case of mixed infection.

The fact that most physicians are quite successful in their practice is strong evidence that many remedies, when properly used, will bring about the desired change sand restore the body to a healthy state; and that the discord in professional ranks is more apparent than real.

EDITORIAL NEWS ITEMS

Definition of Medical Practice in The New South Carolina Practice Act.—That any person shall be regarded as practicing medicine within the meaning of this Act who shall append the letters M. D. or M. B. to his or her name, or shall prescribe, direct, or apply, or shall profess or publicly advertise that he or she prescribes, directs or applies for the alleged purpose of treating, curing or relieving any bodily or mental disease, infirmity, deformity, defect, ailment or injury in any person other than himself, any drug, instrument, or force, whether physical or psychic, or of whatever nature, or any other agency or means, or who shall examine any such person for such purposes; whether such drugs; instruments, force or other agency or means is to be applied or used by the patient or by any other person; and whether such prescribing directing, or applying, be for compensation of any kind or be gratituitous; and any officer or agent, or employee or member of any corporation, association or partnership which does or professes or publicly advertises that it does examine for, cure, treat, or relieve such diseases, ailment, deformities, defects, injuries or infirmities, in any of the modes mentioned in this section.

The Anson County Sanatorium, Wadesboro, N. C. On Tuesday, July 4th, this sanatorium was formally opened. The following program was carried out:

Operating Room.

9-10 (operation) Dr. C. M. Strong, Charlotte, N. C.

10-11 (operation) Dr. J. Ernest Stokes, Salisbury, N. C.

11-12 (operation) Dr. J. W. Long, Greensboro, N. C.

12-1 (operation) Dr. Addison Brenizer, Charlotte, N. C.

1-2 (operation) Dr. H. A. Royster, Raleigh, N. C.

2-3 (operation) Dr. G. W. Pressly, Charlotte, N. C.

3-4 Lunch at the Sanatorium.

4-7 a. Dr. J. P. Munroe, Charlotte, N. C.: "The Medical Aspects of the Glands of Internal Secretions."

b. Dr. William Allan, Charlotte, N. C.: "Hyperthyroidism."

c. Dr. J. W. Long, Greensboro, N. C.: "The Surgical Aspects of the Glands of Internal Secretion."

d. Dr. Addison Brenizer, Charlotte, N. C.: "The Surgical Treatment of Goiter" (Lantern Slides).

e. Discussion by the Medical Men and

Surgeons present.

8 p. m. General reception to the Doctors and the public at the hospital.

Board of Trustees.

Dr. R. D. Ross.
Dr. L. C. Smith.
Dr. J. E. Hart.
Dr. J. M. Dunlap.
R. L. Hardison.
Dr. E. S. Ashe.
T. A. Marshall.

This is a very complete hospital, it is well equipped and beautifully arranged, the architect made his plans well. Wadesboro is a good location for a first class hospital, and the building and operating of this institution is a circumstance that the people of this section of the state, really the whole of North Carolina, should feel proud of. The medical gentlemen who are at the back of this hospital means that it will succeed from the beginning, they are strong, up-to-date medical gentlemen in every respect, and we wish them every success possible. The young medical man of today outside of a good official connection with some good hospital is working to a great disadvantage, he is handicapped, regardless of whatever intelligent effort he may make.

Dr. Allen J. Jervey, of Charleston, S. C., has been promoted from the rank of Captain to Major in the National Guard of South Carolina. This promotion is an honor that Dr. Jervey's friends appreciate, and they consider that he is worthy of the compliment and recognition.

Dr. Herman G. Tartar, of Wytheville, Va., died July 15th. Dr. Tartar graduated from the Medical College of Virginia about five years ago. Since his graduation he has been associated with his father, Dr. J. E. Tartar, a very prominent physician of that section of Virginia.

The death of Dr. Tartar is a loss to the medical profession of Virginia. He exhibited many evidences that he would make a very prominent and useful citizen of that state.

New Doctors for South Carolina. It was announced in Columbia on July 13th that the following young physicians had passed a successful examination in that state for the practice of medicine, and had received their license:

K. L. Able, Leesville, S. C., Southern College M. and S. 1913. C. H. Andrews, Oswego, S. C., South Carolina Medical College, 1916. W. E. Bickley, Helena, S. C., University of Maryland, 1916. W. G. Bodie, Batesburg, S. C., South Carolina Medical College, 1916. L. D. Boone, Rowesville, S. C., South Carolina Medical College, 1916. W. B. Brigman, Bennettsville, S. C., Medical College of Virginia, 1916. J. J. Chandler, Sumter, S. C., University of Maryland, 1916. W. T. Clement, Charleston, S. C., South Carolina Medical College, 1916. R. H. Crawford, Rock Hill, S. C., Johns Hopkins University, 1914. W. E. Crooke, Pomaria, S. C., South Carolina Medical College, 1916. J. E. Cudd, Spartanburg, S. C., University of Maryland, 1916. R. N. Davis, Troy, S. C., Atlanta Medical College, 1916. F. D. Edwards, Belwood, N. C., Atlanta Medical College, 1914. R. N. Polk, Pomaria, S. C., University of Maryland, 1916. C. A. Glover, Chesterfield, S. C., Atlanta School of Medicine, 1910. W. H. Harper, Kingstree, S. C., South Carolina Medical College, 1915. E. M. Hicks, Coward, S. C., Johns Hopkins Mount, N. C., South Carolina Medical University, 1916. E. R. Hines, Rocky College, 1916. O. F. Hogan, Lynchburg, S. C., South Carolina Medical College, 1913. O. C. Holley, Leesville, S. C., Maryland Medical College, 1905. G. F. Hughson, Spartanburg, S. C., Medical College of Virginia, 1916. W. V. Kay, Anderson, S. C., Medical College of Virginia, 1916. S. C. Ketchen, Winnsboro, S. C., South Carolina Medical College, 1916. R. H. Long, Monroe, N. C., Jefferson Medical College, 1916. K. E. Lowman, Orangeburg, S. C., South Carolina Medical College, 1916. R. S. Major, Leesville, S. C., Johns Hopkins University, 1916. L. W. McGrath, Charleston, S. C., South Carolina Medical College, 1916. J. C. Milford, Anderson, S. C., Atlanta Medical College, 1915. C. M. Moore, Hagood, S. C., South Carolina Medical College, 1916. P. N. Nevil, Register, Ga., Southern College of Medicine and Surgery, 1914. J. D. Odom, Gordon, Ala., Atlanta Medical College, 1916. V. W. Osborne, Brevard, N. C., Atlanta Medical College, 1916. J. G. Pate, Gibson, N. C., University of Pennsylvania, 1916. T. A. Pitts, Saluda, S. C., South Carolina Medical College, 1916.

Dr. N. G. Wilson, of Norfolk, Va., the physician of the Police Relief Fund Association, has been re-elected to that position.

Dr. Chas. P. Wertembaker, aged fifty-six years, for nearly thirty years a surgeon in the United States Public Health Service, died in Charlottesville, Va., July 13th. He graduated from the University of Virginia in 1882. Six years later he entered the Public Health and Marine

Hospital Service and had command of some of the largest stations in the service. He was a medical gentleman of considerable knowledge. One many subjects along public health lines he was regarded as an authority.

Ninety-Six New Doctors in North Carolina.—The State Board of Medical Examiners on July 13 announced that 96 young physicians had successfully passed the Board of Medical Examiners and have received their license to practice medicine in this state.

The total number registered for examination was 150. Of these 34 were second-year applicants who took only the preliminary branches.

The successful candidates for permanent license were a sfollows:

L. W. Anderson (colored), Johnson City, Tenn., P. R. Bennett, Bryson City; T. L. Bray, Hertford; P. R. Brown, Charlotte; A. M. Blue, Carthage; B. I. Bell, Swan Quarter; J. C. Brantley, Spring Hope; A. M. Benshoff, Johnsontown, Pa.; E. L. Bender, Pollocksville; J. R. Ballance, Catawba; J. A. Bangle, Charlotte; S. J. B. Collins (colored), Oxford; A. M. Crouch, Roberdel; P. C. Carter, Holly Springs; W. M. Capehart (colored), Edenton; M. L. Carr, Farmville; G. P. Dillard, Martinsville, Va.; H. C. Dixon, Siler City; C. H. Donnell (colored), Greensboro; J. B. Davis (colored), Raleigh; R. B. Davis, Weeksville; C. W. Eley, Woodland; Forrest Elliott, Shelby; F. D. Edwards, Belwood; E. L. English, Asheville; G. H. Faggart, Philadelphia, Pa.; F. T. Foard, Jr., Hickory; P. W. Fetzer, Reidsville; W. G. Francis, Waynesville; J. F. Foster, East Durham; G. L. Fuquay, Coats; G. W. Greene, Yadkin College; L. M. Griffith, Asheville; A. B. Greenwood; Asheville; C. A. Glover, Chesterfield, S. C.; T. W. Haywood (colored), West Raleigh; J. W. Harris, Reidsville; P. C. Harward, Morrisville; A. G. T. Hipps, Spring Creek; J. M. Howard, Jr., New Berne; J. R. Hege, Clemmons; L. L. Hobbs, Jr., Guilford College; E. R. Hines, Rocky Mount; J. R. Hester, Hurdle Mills; H. L. Izlar, Winston-Salem; F. P. James, Laurinburg; O. H. Jennings, East Fruitland; L. E. Jordan, Raleigh; C. W. Jennings, Greensboro; J. A. Keiger, Tobaccoville; R. M. Lancaster, St. Pauls; C. H. Lupton, Sealevel; R. H. Long Monroe; L. L. Long, Grayson; S. V. Lewis, Middlesex; F. W. H. Logan, Union Mills; M. T. Long, Rutherfordton; W. M. Leggett, Hobgood; A. H. Moore, Washington; E. R. Meyerberg, Goldsboro; W. P. Mull, Casah; W. P. McKay, Red Springs; B. W. McKenzie, Salisbury; W. R. McIntosh, Rockingham; R. A. McBrayer, Sanatorium; P. H. Noell, Roxboro; J. G. Pate, Gibson; I. C. Prevette, North Wilkesboro; P. G. Parker, Potecasi; W. R. Parker, Woodland; W. H. Parsons, Covington; G. R. Patrick, Lowell; P. P. Prioleau, Eustis, Fla.; R. C. Bray, Beaver Creek; T. S. Royster, Townesville; E. G. Reade, Durham; T. M. Rivers (colored), Raleigh; W. H. Sherrill, Sherrills Ford; H. F. Starr, Greensboro; L. M. Swindell, Jr., Swan Quarter; Joseph Smith, Greenville; W. A. Smith, Goldsboro; E. L. Strickland, Wilson; F. A. Sharpe, Greensboro; T. M. Stanton, High Point; W. H. Sloan, Garland; J. R. Spencer, Ryland; H. W. Tidmarsh, Whitmire, S. C.; C. V. Tyner, Lowe; W. A. Trivette, Harmony; E. F. Uzzle, Raleigh; N. St. G. Vann, Philadelphia, Pa.; J. A. Winstead, Nashville; L. J. Whitehead, Scotland Neck; Grover Wilkes, Sylvia; O. R. Yates, Morrisville.

The Dorchester County Medical Society of South Carolina met at St. George July 4th. The meeting was well attended, and it is said that it was one of the most enthusiastic meetings held in its history. There was several visitors from Charleston, Summerville, Ridgeville, Harleyville, Reevesville, Eutawville, Grover, Holly Hill and Walterboro. The local association entertained the visitors to a dinner at the Utsey Hotel, and subsequently a fine moving picture show.

The business meeting of this society was held in the forenoon and a number some very interesting talks and there of leading physicians of Charleston gave were several very interesting and instructive papers read by the different members of the association.

Dr. Joseph A. Gale ,of Roanoke, Va., died July 6th at the Lewis-Gale Hospital. Dr. Gale was one of the oldest physicians in the State of Virginia and one of the most honored member sof the medical profession. He was seventy-three years of age, and had been considered seriously ill from June 26th until the time of his death.

Dr. Gale was one of Roanoke's oldest as well a sleading physicians and surgeons. He had been prominently identified with the medical fraternities in that section of Virginia for many years, and for nearly half a century he had filled the important position of chief surgeon for the Norfolk & Western Railway. He was the first and only one to hold this position.

At the outbreak of the Civil War, he enlisted in Capt. Frank Huger's battery of field artillery, serving about eighteen months and participating in the battles around Richmond. He was then transferred to the medical department of the Confederate army as hospital steward, in charge of the dispensary of Chimborazo hospital, Richmond, remaining there until the close of the war. By special order of the surgeon general of the Confederate Army, he was permitted to matriculate at the Medical College of Virginia while in the army hospital service, and it was at thi sinstitution that he laid the foundation for the professional education which, after the war, was supplemented by a course at the Bellevue Hospital College, New York, graduating from that institution in 1866. For half a century he had been in the active and uninterrupted practice of his profession. He had at all times interested himself in the various medical organizations of the country, being a member of the American Medical Association; International Association of Railroad Surgeons; Medical Society of Roanoke; Southern Surgical and Gynecological Society, and the Medical Society of Virginia, being president of the latter in 1903 and 1904.

Dr. Gale's social relationship to his firends was a circumstance that made them feel proud. He was one of the most accomplished medical gentlemen that the writer has ever met. His life, his work, and his accomplishments is a fine example for the younger set of medical men all over this section of the country to imitate.

Dr. C. L. Summers, of Winston-alem, N. C., but who has been in Baltimore for the last year taking special post graduate work in the laboratories of Johns-Hopkins Hospital, was recently appointed a regular member of the visiting hospital staff of the Robert Garrett Hospital for children. This is a position that carries with it great professional responsibility. We feel, however, that Dr. Summers is thoroughly capable of performing the duties that he will assume when connected with that well known institution. Dr. Summers has studied in the different children's hospitals in Europe for several years, and on several occasions. This circumstance makes it quite appropriate for him to receive this appointment.

Dr. J. A. Speight has been elected whole-time health officer of Nash County, N. C. Dr. Speight is a bright young medical gentleman—he will make a fine health officer.

Dr. Sherwood Dix has been made full-time health officer for Norfolk County, Va.

Dr. James F. Crane one of the oldest and most highly honored physicians of Richmond, Va., died July 11th.

Dr. Crane graduated in 1875 at the Medical College of Virginia. He was for many years city physician. Recently at the Richmond Academy of Medicine and Surgery resolutions concerning Dr. Crane and his honorable and useful life were adopted. Dr. Frank W. Upshur and Dr. J. Allison Hodges made addresses eulogizing the lamented physician.

Dr. J. J. Kinyoun, city health officer of Winston-Salem, has been having a sanitary survey made of the water-sheds of Winston and Salem. This is the first time that a sanitary survey of these water-sheds has been made.

Dr. A. W. Downs lately Professor of Physiology in the Medico-Chirugical College, of Philadelphia, Pa., was elected associate professor of Pharmacology and Bio-chemistry in the Medical Department of Wake Forest College by the executive committee, which met in Raleigh, N. C., on July 16th.

The election of Dr. Down to the faculty of the Medical Department of Wake Forest College adds another strong man to that already well equipped Medical Department. We are especially interested in that department of this splendid college, and we are always glad to see exhibited every evidence that it is taking on new life, and new development, and that it is preparing rapidly to do greater work, and better work, and more work along lines so essential to building up and developing this department of Wake Forest College.

Dr. O. C. Wright, of Jarratts, Va., was instantly killed in an automobile accident on July 11th.

Dr. Wright was an active member of the Southside Medical Society of Virginia, and was well and favorably known as a medical gentleman of that state. He graduated in 1893 from the College of Physicians and Surgeons of Baltimore, Md., and he joined the Virginia state medical society during the same year. He was a member of the medical examining board of Virginia from the fourth district, and was made honorary member in 1911. He was a president of his state society in 1908-1909.

Dr. H. D. Stewart, of Monroe, N. C., has been elected one of the trustees of the Monroe graded school.

Tuberculosis Sanatorium for Colored People. Mr. Geo. W. Watts has given $500.00, and Mr. W. A. Erwin, $100.00 to aid the erection and maintenance of the tuberculosis sanatorium for the colored people in Durham, N. C. This institution is to be in connection with the Lincoln hospital for colored people.

The county of Durham, and the city of Durham have voted to contribute $25.00 each weekly for the expenses of operating the institution.

This is a very wise interprise, and will do a great deal of good not only for the colored people of that section of the country, but for the white population who comes so intimately associated with that race every day.

Dr. Samuel D. Booth, of Oxford, N. C., died at his home in that city on June 28th. Dr. Booth was seventy-four years old, and had been in declining health for several months.

To mention the death of Dr. Booth will give to thousands of his friends and medical acquaintances a feeling of very great regret. He was a remarkable professional gentleman, he did not have a superior in this state. The difficulties that he overcame when a young man, and a young professional gentleman, were simply remarkable. It would be difficult for us to mention another man in North Carolina with his equipment who accomplished as much as he did. It is doubtful whether he had an enemy, but he had a very large circle of friends and admirers, not only in the Carolinas and Virginia, but all over the Atlantic States.

The following is a biographical sketch of his life that was published in the Charlotte Medical Journal of December 1914. We give it in full.

Dr. Samuel David Booth, of Oxford, N. C., was born in Mecklenburg County, Va., March 11, 1842. He is the eighth doctor of this family, having had four uncles, an older brother and two nephews in the profession.

He was educated at the common schools of Charlotte and Halifax Counties. His school days were shortened by the outbreak of the Civil War. He joined the Halifax Light Infantry, Capt. Grammer's Company, A-53rd Virginia Regiment, and was mustered in service at Richmond in April, 1861. This regiment was in the battle of Seven Pines and then in the Seven Days Battle before Richmond, including the terrible conflict at Malvern Hill. After this Dr. Booth was with his regiment in every battle fought by General R. E. Lee in Virginia, Maryland and Pennsylvania, not receiving a wound or losing a day from duty until July 3, 1863, at Gettysburg. There as a member of Pickett's Division he was in that ever to be remembered charge and was shot down within twenty yards of the rock fence about which so much has been heard and read, having his left forearm crushed by a minie ball and at the same time receiving a flesh wound in the side. Upon his recovery he was transferred to Company G, Sixth Virginia Calvary. He was captured at Spottsylvania C. H. and taken to Ft. Delaware, where he was confined until June 29, 1865.

Immediately after the war this recently discharged prisoner was prevailed upon by his elder brother, Dr. J. W. Booth, to locate at Tallyho, N. C., and study and practice medicine with him. His mother's estate, consisting mostly of negroes and confederate bonds, was wiped out as a result of the war and this necessitated his borrowing money with which to pursue his medical course. He attended lectures at the old Medical College of Virginia in 1866 and 1867. This college was then said to have the most able faculty south of Philadelphia.

He began the practice of medicine under adverse circumstances at a little hamlet called Knap of Reeds, about one-half way between Oxford and Durham in a rough, hilly country. As is the life of all country doctors, his life was full of hardships but his loyalty to his profession never allowed any obstacle to stop him when called to see a clase of any urgency. Often he was called in to the very worst cases and had to rely entirely on his own resources and judgment, being too far away from any other doctor to obtain consultation. However, he won the confidence of all, which is worth much to a young doctor who has to rely on his own efforts in difficult cases.

In 1880 he entered into partnership with Dr. P. W. Young and moved to Oxford, Dr. Young died five years afterwards, leaving the practice of Oxford and surrounding country as a heritage from this worthy young man. It was too much for any one man and overwork and the loss of sleep shattered his constitution.

Dr. Booth was elected superintendent of Health of Granville County fifteen years ago and has filled the office continuously ever since. He was elected president of the State Medical Society at Charlotte, N. C., in 1896 and presided

over that body at its regular annual meeting at Morehead City, N. C., in 1907. The subject of his address was Tuberculosis and the Law, upon which he was highly complimented by Dr. Howard Kelly of Baltimore, Md.

In 1882 and 1888 he attended post graduate courses of lecture sat the Post Graduate School and Hospital at New York.

Though advancing years had made it necessary for Dr. Booth to diminish somewhat the scope of his practice, he manages to keep abreast with his county health work.

Dr. S. W. Hammond, a prominent young physician of Lambert's Point, 4620 Myers Ave., Norfolk, Va. was killed on July 25 by a collision, while he was going to see an emergency case. Dr. Hammond has been practicing medicine in Norfolk for 11 years, and was widely and favorably known all over the country in which he practiced.

He graduated from the University of Maryland in 1905, and was a very fine type of a young professional gentleman, and his friends and admirers predicted for him a very brilliant and successful future. His death is a loss to the medical profession, not only of Virginia, but all over this section of the south.

The Watershed Health Society, composed of a large number of colored people living on each side of Tar River for a number of miles above Louisburg, and which is under the supervision of Dr. J. E. Malone, health officer, had a most unique meeting in Louisburg on July 25. They met at night in the Court House and it was filled with interesting visitors of both races. Four papers were read by colored physicians along health lines, entitled, "The Fly," "The Mosquito," "How to Keep the House and Premises Clean," and "How to Keep a Clean and Healthy Body, Mind and Soul."

Our future governor, T. W. Bickett, made a short address. Meetings of this kind are of great value.

Young Medical Men Enlisted in The Army in This Section of The Country—Charlotte, N. C. leads the two Carolinas in number of enlistments during May. Obtaining 25 recruits in the medical service. Columbia, S. C. comes second with 17, and Greenville, S. C. third with 15.

The salary scale for this service in the United States Army is Master hospital sergeant, $75 per month; hospital sergeant, medical department, $65 month; sergeant first-class, $50 month; sergeant, hospital corps, $36.

The Third District Medical Society of North Carolina.—The Third District Medical Society of North Carolina met at the Oceanic Hotel at Wrightsville Beach on July 20th. The meeting was called to order at 3.00 p. m. and was in session until 6.30 p. m.

Dr. T. M. Green, preisdent of the society presided over the meeting, and Dr. Buren Sidbury ,the secretary had prepared a very excellent programme. Possibly the majority of the prominent physicians of this, the third district were present and read papers. One of the most important papers was entitled "The Attitude of the Profession Towards the Tonsils." This paper was read by Dr. Tate Moore.

Dr. Edward J. Wood, an ex-president of the North Carolina Medical Society read a very excelelnt pape rentitled "Studies in Pellagra." The paper was well received.

Dr. Herbert F. Munt, of Boardman, N. C., reported some very interesting cases.

Dr. Ernest F. Bulluck, always on the alert to say something new and to present valuable ideas to the profession, read a paper entitled "Modern Views of Bone Grafting." This paper was well received.

Dr. L. D. Bryan, of Snead's Ferry erported some cases that were of considerable interest.

Dr. Cyrus Thompson, of Jacksonville, N. C. (it is hardly necessary to give his address), was at the meeting and had considerable to say.

BOOK NOTICES.

Sex Problems of Man in Health and Disease, A Popular Study in Sex Knowledge, by Moses Scholtz, M. D., of Clinic and Clinical Instructor in Dermatology and Sphilology, Medical Department University of Cincinnati; Fellow of American Medical Association, Ohio State Medical Society, Medical Academy of Cincinnati, Society of Moral and Sanitary Prophylaxis, etc. Price $1.00. Cincinnati: Stewart and Kidd Company, 1916.

Sex question is as old as the world—yet it is ever new. Average man is as ignorant of the sex knowledge, is struggling with sex problems and seeking for guidance as ever before. "Sex Problems of Man in Health and Disease," by Dr. Moses Scholtz, is a key to the door of sex knowledge offered by an expert to a man

striving for his selfconsciousness. Every aspect of the man's life in health and disease is considered and explained from a scientific, moral, and strictly practical angle.

This volume by Dr. Moses Scholtz, an expert on venereal diseases, is an entirely new departure in the literature of sexual hygiene. The book is rightly named, "a popular study on sex knowledge." This is the first attempt to present to the general public, in a thoroughly scientific and comprehensive manner, all the facts of the sex life of a man. A youth struggling for purity of his manhood will find a powerful support and encouragement from the scientific viewpoint. An unfortunate victim of a venereal disease will be greatly enlightened and benefited by a wealth of information of a practical character scattered in the book.

Next to the instinct of self-preservation, sex is the most powerful and dominating factor of human life, its proper interpretation and control brings to a man happiness and fully developed healthy life. Its ignorance or abuse spell ruin and destruction of body and soul.

The book contains one hundred and sixty-eight pages. It is accurately indexed and treats with the diseases that its title suggests in a very intelligent way. I think the book is worth $1.00 to any one who is interested in this kind of study.

The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery, under the general editorial charge of Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume II General Surgery, edited by John B. Murphy, A. M., M. D., LL.D. F. R. C. S. England (Hon.), F. A. C. S. Professor of Surgery in the Northwestern University; Attending Surgeon and Chief of Staff of Mercy Hospital and Columbus Hospital: Consulting Surgeon to Cook County Hospital and Alexian Brothers Hospital, Chicago. Series 1916. Chicago: The Year Book Publishers, 327 La Salle St.

The price of this volume is $2.00; the price of the series of ten volumes is $10.00. This is the best volume of the entire series. I have been receiving these volumes for many years and have had the pleasure of reviewing the ones that have previously appeared, and this is the best volume that has ever been published. I do not know how many illustrations appear in the volume, but I am sure that there is four or five hundred, and they are very appropriate. It is a remarkable book for the price. Medical men who are interested in modern medical literature ought to buy this volume.

The Greater Tragedy and Other Things, by Benjamin Apthrop Gould. Price $1.00. G. P. Putnam's Sons, New York and London.

This book consists of a series of vigorous articles by an American living in Canada and deals principally with the attitude of the United States to the war. An intense optimism and a lofty idealism are coupled with a determination to arouse the country to the performance of its duty. The book breathes of the old true Americanism, and even where Mr. Gould most virgulently attacks the course of the Wilson Administration, the breadth of his view raises his onslaught far above the plane of party politics. It is a cry for the old Spirit of 1776 to assert itself to bring into being in the world a greater and more widespread liberty and progress. It is a plea for a closer co-operation of the democracies of the world to accomplish democratic ideals.

The reviewer has a good opinion of this book. It is worth reading regardless of whatever views one may have. The reviewer takes a great interest in the war, without prejudice, and I would like very much to see this book popularized, not only popularized, but read, and read extensively, and receive intelligent thought.

Star of The North, by Francis William Sullivan, author of "Alloy of Gold" "Children of Banishment," etc. Price, $1.35 net. G. P. Putnam's Sons, New York and London.

Imagine the members of a New York Moving-Picture company, whose directo, to secure the proper setting, has located them far north in the Canadian wilds! Imagine the surprise of the leading man, hopelessly lost in the woods, when he suddenly comes upon a beautiful girl, the daughter of a Hudson Bay Post Factor! And Imagine the surprisnig new world opened to the girl, who never had heard of the "movies."

The book contains four hundred pages and there is not a page or paragraph in it that is not interesting. The story is full of thrilling situations, but pictured with rate genuineness, by an author who knows his northland, as readers of "Children of Banishment" will attest.

The Influence of Joy, by George Van Ness Dearborn, Instructor in Psychology and in Education, Sargent Normal School, Cambridge; Psychol-

ogist and Psysiologist to the Forsyth Dental Infirmaty for Children, Boston, Etc. Price $1.00. Boston: Little, Brown, and Company.

This is not a platitudinous treatise on happiness; it is a scientific exposition of both the mechanism and the significance of the basic emotion with which it deals. Some of the chapter titles are given to afford an idea of its scope: The influence on Nutrition; The Influence on the Circulation; The Influence on the Nervous System, etc.; The Love Life; Work and Play; Worry and the Glory of the World; The Economics of Happiness; Personality, etc.

This volume of two hundred and thirty-eight pages is worth $1.00—it has that much of valuation. To think of joy! To think of the many happy things that bring it to us—to study its sources—to study its consequences, is beautiful. A book that deals with these delightful things, that intelligently covers over two hundred and twenty-five pages, I think is a very valuable book for its price.

Infancy and Childhood, A Popular Book on the Care of Children, by Walter Reeve Ramsey, M. D. Assistant Professor of Disease of Children, University of Minnesota; Associate Visiting Physician to the University Hospital; Visiting Physician to St. Paul Baby Welfare Association. Price, $1.25. New York: E. P. Dutton and Company, 681 Fifth Avenue. 1916.

In this simple and practical book a Physician of large and specialized experience in the dangers and disease of Babies and Children outlines in accurate detail the safe and sane way to bring up your child. No fads, no fanciful and expensive experiments, but conservative, scientific advice which any sensible mother can apply. A guide on which you can rely—always at hand for instant consultation if anything goes wrong. In fact—a resident specialist in your house.

The Window in The Fence, by Harriet Brunkhurst. New York: George H. Doran Company. Price, $1.25, postage, 15 cents.

This is a story of a Man Who Wrote a Woman Who Painted, but who wanted the real things; country dawns and autum log-fires snapping the hearth, the hermit—thrush at evening—the sound of children's voices, the interest of sturdy, growing lives.

All these things they found—the great happiness the Real Things always bring—the disciplining sorrows also.

A book to read, a book to keep on a familiar, handy shelf, a book to give to a real friend: A story that will reach your heart, unfailingly, and leave warm memories behind.

The reviewer likes this book, it has made a very favorable impression upon me. Every page of it is interesting. It contains three hundred and eighteen pages. It is a volume that does not necessarily need illustrations although its frontis-piece is very beautiful.

Miss Brunkhurst is certainly a very attractive writer and quickly interests the reader in her style. It gives me a great deal of pleasure to recommend the book, it is not expensive, only $1.25.

Infections of the Hand. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand and Forearm. By Allen B. Kanavel, M. D., Assistant Professor of Surgery, Northwestern University Medical School; Attending Surgeon, Wesley and Cook County Hospitals, Chicago. New (3d) edition, thoroughly revised. Octavo, 498 pages, with 161 illustrations. Cloth, $3.75, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The importance of this work to all surgeons is demonstrated by the fact that it has passed so quickly through two large editions. The urgent demand for a third has given the author an opportunity to enhance the value of his monograph by a thorough revision and by the addition of two chapters: the first upon the "Relation of Acute Infective Processes to Industrial Pursuits," and the second upon "Plastic Procedures Instituted for the Correction of Deformities." The entire work has been thoroughly revised and enlarged, and a number of new illustrations have been added.

The enormous economic significance of infections of the hand is coming to be universally recognized and there is probably no other class of cases where malpractice is more common or unfortunate results of treatment more frequent. The subject of this book is, therefore, of the greatest importance to every surgeon and general practitioner. The surgeon who does casualty work or has charge of industrial accidents will find the work invaluable, and many deformed hands might be prevented if every practitioner were familiar with the importance of this subject and with the complete manner in which this book handles it.

The practical character of this work may be shown by the following quotation from the preface:—"The chapters are so grouped that the busy practitioner can

find the part dealing with his particular case quickly. Given a case in which the practitioner is in doubt, he should read the chapter upon 'Diagnosis and Treatment in General.' This will indicate the group into which his case falls, and will also direct him to the proper sections of the book where cases of that nature are treated in detail." Any physician who carefully follows Kanavel will have his conception of the subject greatly clarified. The various chapters on treatment of different conditions are very full, the technique is well described, and the after-treatment is carefully given. The illustrations are remarkably clear and instructive. Following several of the chapters, a definite, complete resume is given, which will be found most helpful.

My Home in the Field of Honour, by Frances Wilson Huard with drawings by Charles Huard. Price, $1.35. New York: George H. Doran Company.

Being the simple narrative of the woman left at home in her chateau sixty miles northeast of Paris during the perilous times of the great retreat. The illustrations are sketches made by Charles Huard, official painter of the war to the sixth Army of France. This story is very interesting. It is sad, however, as its title suggests, "My Home on the Field of Honour." Every page, every paragraph, every sentence and every section of this book deals with the perilous times of this great struggle or war against Germany in which France is making such a great fight for what she considers for the right, and for what the reviewer thinks is for the right. I aprove of the book—I recommend it—it should be read. It has too much of value to be shelved. I hope every one of my readers will write to the publishers and buy a copy of it.

The Conquest of America, A Romance of Disaster and Victory: U. S. A., 1921 A. D., based on extracts from the diary of James E. Langston, war correspondent of the "London Times," by Cleveland Moffett, author of "Through The Wall," "The Battle," "Careers of Danger and Daring," Etc., Etc. Price $1.50. New York: George H. Doran Company.

What would happen if any nation of first military strength should suddenly attack the United States?

Here is the story of it, and it's real—real as a hand at your throat.

Our own cities crumble down, our best known men and women struggle and plan and suffer—and die. It is no fanciful thing, this; it is as sane and considered as it is dramatic, thrilling, engrossing. It has the approval of military experts. Tacticians have agreed that a very probable course of events in case of an invasion has been forshawdowed here.

The above is what the publishers say about this book. I have looked over it carefully, I have examined it carefully, and I believe it is one of the most interesting books that I have examined for several months. It deals with subjects that the title would suggest. It illustrates Mr. Roosevelt fighting in the trenches with his four sons—it gives extracts of his speeches which, as all of us know, is not only of interest, but carries with every word a valuable suggestion, suggestions that are worthy of study and consideration. If I had the time, I would read it over and over again—the entire book. It gives me a great deal of pleasure to recommend it, the price is only $1.50.

The Dark Forest, by Hugh Walpole, author of "Fortitude," "The Golden Scarecrow," Etc., Etc. "But the fools, because they cared more deeply, were chosen.—"Spanish Nights (Henry Galleon). Price, $1.35. New York: George H. Doran Company.

In this extraordinary novel Hugh Walpole has succeeded in re-thinking the Russian novel in terms of his own knowledge of life and character. Mystical, poetical ,spiritual, the charm of The DARK FOREST is the tirumph of the soul over disaster. There is nothing lacking of the familiar qualities of Walpole but there is an added depth of emotion—some passages excelling in vivid realism anything yet received from his gifted pen.

I think that it is possible that Mr. Walpole made his greatest effort in his first volume, entitled "Fortitude." This novel of his was one of very great interest, beautifully written, and exhibited many evidences that the author was a very accomplished and learned gentleman. While we thoroughly recommend this volume that is now before us entitled "The Dark Forest," it is quite doubtful whether it will receive the same degree of applause that his first effort received.

Obstetrics—Normal and Operative, by George Peaslee Shears, B. S., M. D., Professor of Obstetrics and Attending Obstetrician at the New York Polyclinic Medical School and Hospital; Formerly Instructor in Obstetrics, Cornell University Medical College; Attending Obstetrician at the New York City Hospital; Senior Attending Obstetrician at the Misericordia

Hospital. 419 Illustrations. Price, $6.00. Philadelphia and London: J. B. Lippincott Company.

I do not believe that there has ever been a book published on this subject that is superior to this, it is up-to-date in every respect. We all know of course that Dr. Shears is considered authority on all the subjects that he writes. In this volume of about seven hundred and fifty pages, with four hundred and nineteen illustrations, many of them very large and very complete, and where the publishers in many cases used colored plates, makes the book as complete as any book of its kind that is now published in the English language.

The author has had extensive experience, as we all know, both in hospital and private practice, and consulting practice. This enables him, of course, to write authoritatively on this subject, beisdes he has been a teacher of recognized authority for many years.

To illustrate one of the superiorities of the book, we notice for example: "If in the course of a difficult version the operator finds it impossible to grasp a knee or a foot, the difficulty may sometimes be obviated by the simple expedient of turning the patient upon her side. This is one of the most important facts in the whole range of clinical obstetrics, and yet, turning to some standard text-book, we find that it is either unknown or unnoticed ,but observe at the same time that considerable space is devoted to the subject of the cause of menstruation." Chapters of this kind, the omission of certain other chapters, or paragraphs, makes the book of very unusual value. There is no question in my mind that it is the best book on the subject of not more than seven hundred and fifty pages that is now obtainable in the English language. It certainly gives me a great deal of pleasure to recommend the book.

Old Judge Priest, by Irvin S. Cobb, author of "Back Home," "Paths of Glory," Etc. Price, $1.25. New York: George H. Doran Company.

The old Kentucky Judge is no longer a mere fiction character but a real man whom we all know and love, and to whose dry humor and rich humanity-expressed with Cobb's quick sense for drama—we thrill with laughter or with moistened eye.

He sums up and makes vivid all the real America—the America of little towns dustily brooding under maples, but suddenly rousing to scandal or amusing incident or the slow tramp of old soldiers.

It was my pleasure to read Mr. Cobb's book entitled "Back Home," also "Paths of Glory." Mr. Cobb is an attractive writer, he writes interestingly, and every one who is reasonably familiar with the literature of today must know something about Mr. Cobb's writing. If they are at all familiar with his writings, this volume will especially appeal to them. The price of the book is only $1.25. I am so much interested in it myself that I unhesitatingly say that every intelligent man and woman in this country should read it, and have a copy of it in their library.

Scopolamine-Morphine Anaesthesia by Bertha Van Hoosen, M. A., M. D. Attending Gynaecologist to Cook County Hospital, Providence Hospital and Mary Thompson Hospital. Member of The American Medical Association, Illinois State Medical Society, Chicago Medical Society, Etc., and A Psychological Study of "Twilight Sleep" Made by the Giessen Method by Elizabeth Ross Shaw, Consulting Psychologist. The House of Manz. Chicago.

This book of two hundred and sixteen pages completely covers the subject which it is supposed to discuss. The cause of its production was on account of a paper read at the Tri-State Medical Society at Des Moines on October 13th and 14th, 1914, by Dr. Van Hoosen.

Dr. Van Hoosen has been accused of being abnormally enthusiastic over the use of this means of anaesthetic in child birth and in other conditions in which an anaesthetic is used.

We unhesitatingly recommend the book. It is rather difficult for the reviewer to unreservedly endorse all the statements that Dr. Van Hoosen has brought out in the book. It has occurred to me that with its use labor is prolonged, there are more still-born children, and not the same post-partum activities or contraction about the womb that would be under normal circumstances. Over five thousand cases have been reported that used this anaesthetic in child-birth, and the statistics are apparently very satisfactory.

Any medical gentleman who is actively engaged in this kind of practice should have the book for reference. I do not know the price of the book—it is well worth a couple of dollars.

The Irish Orators, A History of Ireland's Fight for Freedom, by Claude G. Bowers. Illustrated with photographs. "Ireland is a land worth fighting for."

—Thomas Francis Meagher. The Bobbs.Merrill Company, Publishers. Indianapolis. Price $1.50.

The author tells the dramatic story of Ireland's fight for political and religious freedom from 1760 to the present time, featuring the struggle, the personalities and the oratorical genius of Flood, Grattan, Curran, Plunket, Emmet, O'Connell, Meagher, Butt and Parnell. He has brought his patriots together in one group and has so outlined the work of each that the connection between them is well disclosed, the history which they helped to make is followed in telligently and without loss of its connecting links, and the personal and human side of the heroes is still prominent. No other one book covers the field so comprehensively, so effectively.

It would have been unfortunate if the author of this volume had not placed it in the hands of the public. His demand and success as a public speaker upon Irish topics led him to a deep study of the history of that glorious nation, and the deeper he studied the more fascinated he became. His work is imbued with the spirit of his own researches and in turn fascinates the reader.

Among the great men who pass in review, Daniel O'Connell is given high place and justly so, for he was a most worthy leader of the people for over a generation. His preeminence recalls the estimation of him held by the Count de Montalembert who said that O'Connell was the finest orator whom he had listened to, or whose works he had read.

The book contains over five hundred pages. It is a book of great value—it is a book that ought to have been written—it appeared at an opportune time. It would not be a miss if it was read and studied not only by the Irish people, and the English people, and the American people, but it should be read and studied by every class of our country. It is well worth the money, only $1.50. Space is not available to give a more extensive review of this very valuable book. I am pleased with it—I am glad that it has been written.

The Tourist's Northwest, by Ruth Kedzie Wood, F. R. G. S. Author of "The Tourist's California," "The Tourist's Maritime Provinces," Etc. With numerous illustrations. Price, $1.75. New York: Dodd, Mead and Company. 1916.

The author likes to travel, knows how to travel, and likes to tell others how to rtavel. As a result she has become a successful specialist in guide books. In the present volume she tells what to see and how to see it in the Northwest—Puget Sound, the Columbia River, the Cascades, Portland, Tacoma, Seattle, the National Glacier Park, and, in fact, all points of interest in the big States of Idaho, Washington and Oregon. Also, there are a number of chapters on the most picturesque part of Canada—the Rockies, the Selkirks, Vancouver Island, and the whole Canadian Northwest, Railway and steamship routes, hotels, best itineraries, etc., are discussed in clear and practical form. The information given is up to date, as the book was written after a tour of investigation that has just been completed. And the author has the knack of making her guide books not only practical and accurate, but delightfully entertaining.

The reviewer has looked over this volume with unusual interest. It has been the pleasure of the reviewer to cross the Atlantic on the Canadian Pacific S. S. Princess Charlotte, and aside from this Miss Wood has mentioned several very interesting incidents that are familiar to the reviewer.

Any one who has any great amount of traveling in view, or any one who wants to refresh their minds about traveling experiences, could not do better, or could not be more interested than to read this very interesting and valuable book of Miss Wood's.

Diseases of The Stomach and Upper Alimentary Tract, by Anthony Bassler, M. D. Professor of Clinical Medicine, New York Polyclinic Medical School and Hospital; Visiting Physician, New York Polyclinic Hospital: Chief Gastro-Enterologist. German Poliklinik: Visiting Gastro-Enterologist, Peoples Hospital, New York City: Editor American Journal of Gastro-Enterology; President New York Gastro-Enterology Club: Member American Medical Association, Medical Society, State and County of New York: American Medical Editors' Association: Fellow New York Academy of Medicine, Etc. Third edition revised and enlarged. Copiously illustrated with numerous half-tone and line text engravings and 76 full-page half-tone plates (with over 100 figures) plain and in colors, from original photographs and drawings. Price $6.00. Philadelphia: D. A. Davis Company Publishers. English Depot, Stanley Phillips, London. 1916.

The author of this book, Dr. Bassler, deserves the praise that he has received by writing this most magnificant book.

In comparatively a very short time it has been necessary to bring out a third edition. He very appropriately thanks the medical profession for the patronage, for the way this book has been received, practically all of the great medical institutions in this county are recommending it as a text book on the subject. The way in which the medical journals all over the world have commented on the volume should make Dr. Bassler feel proud. His efforts have been thoroughly appreciated by the entire medical profession.

Many useful additions to the present volume, the third edition, have been made. The sections on the symptoms, diagnosis, and treatment have been rendered more practical, and the X-ray and laboratory sides, more complete.

Dr. Bassler exhibits in his writings evidences of a long and valuable clinical experience. Of course, we could not do otherwise than to recommend the book. It contains eight hundred and eighty-one pages. The architect of the book is good —it is very attractive, and the printers, and the proof readers have done their work well, it is a handsome volume. The fact that F. A. Davis and Company has published this book is the best recommendation that it can receive.

Man—An Adaptive Mechanism, by George W. Crile, F. A. C. S. Professor of Surgery, School of Medicine, Western Reserve University; Visiting Surgeon to the Lakeside Hospital, Cleveland. Edited by Annette Austin, A. B. New York: The MacMillan Company. 1916. Price, $2.50.

The fact that Dr. Crile has written this book is all the endorsement that it needs. I believe that Dr. Crile is one of the most accomplished medical gentlemen that the world can now produce. It has been recognized for a number of years that he is one of the most attractive and popular writers on medical and surgical subjects that we have in the medical profession. It gives the reviewer a great deal of pleasure to look over and examine this book, it is useless for me to recommend it, the name of Dr. Crile is recommendation enough for it.

"For more than twenty years, the general theme treated in this volume has been under investigation in my laboratories and my clinics, and the volume published during that time have recorded the steps by which I have approached the theories here presented."

Dr. Crile says frther,u in one of the paragraphs in his preface: "The accumulated experimental and clinical data are so extensive that summaries only are given in the present volume, which is an argument for the main thesis, that man is essentially an energy-transforming mechanism, obeying the laws of physics, as do other mechanisms. In presenting this thesis, certain hypotheses have been freely employed where the data were insufficient that they may furnish a working basis upon which to accumulate additional data. An Hypothesis—incomplete or even false—is so easily demolished that it can do little harm; while the presentation of a "false fact" may produce pernicious results."

The book contains about four hundred pages. It is beautifully bound and appropriately indexed, its illustrations are inevery way appropriate and instructive and certainly all that illustrations can add to make the text as plain and as instructive as it is possible.

Skin Cancer, by Henry H. Hazen, A. B., M. D., Professor of Dermatology in the Medical Department of Georgetown University; Professor of Dermatology in the Medical Department of Howard University; Sometime Assistant in Dermatology in the Johns Hopkins University; Member of the American Dermatological Association. With ninety-seven text illustrations, and one colored frontis-piece. Price $4.00. C. V. Mosby Co., St. Louis.

This volume is the only recent monograph published on this subject. The importance of the disease and its wide prevalence makes the appearance of this volume especially opportune.

When one considers that epithelical growths of the skin, both benign and malignant, are so common, that they are usually so easily diagnosed, that the tissue from them is readily obtainable for histological study, and that most of them are so amenable to proper treatment, it is surprising how much ignorance prevails concerning them, even among surgeons and dermatologists. In this country Bloodgood has done much to correlate the clinical and pathological findings, and to point out how these different findings influence treatment, for the treatment of tumors of the skin must be conducted by different procedures according to their malignancy. In this book an effort has been made to gather under one cover the latest views on maligant tumors of the skin, and to give the personal experience of the author, and experience gained in Dr. Bloodgood's surgical pathological department of the Johns Hopkins Hospital, in Dr. Gilchrit's dermatological clinic at the same institution, and in the surgical,

pathological, and dermatological departments of the Freedmen's and Georgetown University hospitals.

The aim of the book is to be both scientific and practical to give the correct pathology of the cutaneous neoplasms, and to point out how this guides treatment.

After looking over the book very carefully, it certainly gives the reviewer pleasure to recommend it. It is a volume, containing two hundred and fifty-one pages, which is very appropriately and thoroughly indexted, and its illustrations are quite appropriate, numbering ninety-seven, and one very fine colored frontis-piece.

Surgical and Gynaecological Nursing, by Edward Mason Parker, M. D., F. A. C. S., Surgeon to Providence Hospital, Washington, D. C., and Scott Dudley Breckinridge, M. D., F. A. C. S., Gynaecologist to Providence Hospital, Washington, D. C. With 134 illustrations in text. Price $2.50. Philadelphia and London, J. B. Lippincott Company.

We have looked over this volume with a great deal of interest—it is a good book—it is possibly the best on this special subject that has ever been written.

The reviewer has been a teacher in training schools for nurses for over twenty years, and I believe that I am fairly familar with the different text books for nurses. Throughout the preparation of this volume effort has been made to present to the student and graduate nurse an essentially practical statement of those procedures in the professional work that fall within the realms of general surgery and gynaecology. While fully realizing the importance of a clear understanding of the theory governing the practice of these branches of nursing, it has not appeared either necessary or desirable to attempt the incorporation of the theories of the sister branches as presented to the student of medicine. As a consequence, such consideration as may be given to surgical bacteriology, pathology, symptomatology or treatment has been with the sole idea of emphasizing the importance of certain nursing duties—as the sterilization of instruments and dressing, the accurate noticing and recording of signs and symptoms, or the preparation of materials necessary for the proper surgical treatment of specified conditions.

The unusual amount of space (both textual and illustrative) given to the subject of surgical instruments was planned with the hope that it would give a chance to the nurse for preparation before she is thrown into the thick of the operating-room fray. Even a general idea of the names, appearances, and uses of the instruments she is to handle, together with some knowledge of their routine application and order of use, should spare the novice at least some part of the discouragement and confusion to which she is subject under the operating-room systems of many hospitals.

The illustrations of the book are especially appropriate, and the artist has done his work well. A book now-a-days without illustrations has no place in an intelligent doctor's office. Fine judgement has been made in selecting the things that ought to be illustrated, there is a great deal in that. The book contains four hundred and twenty-five pages, the volume is a nice one, very completely indexted, the paper is heavy and highly finished, and the price is only $2.50.

Rules for Recovery From Tuberculosis, by Lawrason Brown, M. D.

This little book has been written to help patients to avoid blunders, which are very easily made at first, but very apparent to any patient who knows the problem. It has been written primarily for the author's patients, for the mild and pleasurable excitement of human intercourse deflects at a thousand angles the train of thought, and many important details may not be sufficiently emphasized or overlooked entirely.

It is not the author's intention that the book should be hastily read and laid aside, like the modern novel, but he believes that it should be read slowly, chapter by chapter, day by day.

When it has been carefully read in this manner, he hopes it will be used as a book of reference, a hand-book, so to speak, of the fundamental principles of the cure. He has attempted to make clear the whys and wherefores of many rules ordinarily given to patients in an oracular manner, for he believes that the day has come when the physician should look upon the patient, not as an ignorant child, but as a human being endowed with more or less mature intelligence, as one, in fact, who has a right to demand an explanation of the way certain effects follow certain causes. The physician of today must teach as well as serve, or better, he must teach in order to serve most intelligently. There may be a few patients who are willing to do what they are told without thinking about the matter, and for these explanations may possibly for a time be unnecessary.

The book is a small one, containing 184 pages. It is correctly and appropriately

indexed, comes in a neat volume. It gives us pleasure to recommend it.

A Medical History of The State of Indiana, by G. W. H. Kemper, M. D., Illustrated, Chicago, Ill. American Medical Association Press. 1911.

This volume is a collection of several articles published in the Journal of the Indiana State Medical Association, during the years 1909 and 1910. These articles were entitled "Sketches of the Medical History of Indiana." Two or three years ago Dr. Kemper began the task of preparing and writing the articles that appear in this volume. The biographical sketches are confined to deceased physicians; the living are mentioned only in connection with historical matters.

Dr. Kemper joined the Indiana State Medical Society in 1849, and he has been a faithful attendant, having only missed one or two meetings. Dr. W. H. Wishard is now living, the only one that joined the society the same year and at the same session as Dr. Kemper did, which was 1849. They have always been during these many years close and faithful friends, both prominent and leading physicians of their respective localities. They were together on the battlefield of Shiloh. These men have been conspicuously instrumental in elavating the standard of medicine in Indiana.

The writer of this book was chairman of the committee on Necrology for fifty-one years. This gave Dr. Kemper a thorough acquaintance with all the medical men who belonged to that society and who died during that time. It is, as Dr. Kemper has said, opportune for a medical history of Indiana, and the author of the volume has certainly given us a beautiful history of the medical profession of that great state. It would be well enough if some sprightly medical writer would write the history of the medical profession of his state. The book would be well received.

The medical society of Indiana will be in a few months one hundred years old. I am unde rthe impression that Massachusetts has the oldest society in existence in this country. I do not now recall just how many years it has been in existence. Dr. Kemper deserves to be complimented—he has given the medical profession as a whole a very interesting volume—it must be quite interesting to the medical men of his state.

International Clinics—A quarterly of Illustrated Clinical Lectures and Especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecool gy, Orthopaedics, Pathology, Dermatology, Ophthmalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the Medical Profession throughout the world. Edited by H. R. M. Landis, M. D., Philadelphia, U. S. A., with the collaboration of Chas. H. Mayo, M. D., Rochester; Sir Wm. Osler, Bart., M. D., F. R. S., Oxford; Frank Billings, M. D., Chicago; A. McPhedran, M. D., Toronto; J. W. Ballantune, M. D., Edinburgh; Rupert Blue, M. D., D. P. H., Washington, D. C.; John C. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; John Harold, M. D., London; Richard Kretz, M. D., Vienna. With correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Geneva. Vol. II, 26th Series, 1916. London and Philadelphia, J. B. Lippincott Company.

I want to congratulate the publishers, J. B. Lippincott Co., on giving the medical profession such a valuable volume as this, Volume 11—Twenty-sixth Series. This medical publishing house in a publication of these International Clinics has certainly given the medical profession a wonderfully large amount of fine medical information. We feel proud of our over one hundred volumes of these clinics.

While I do not wish to make a comparison, Dr. Landis publishes a chapter in this book of very great value entitled "Milk and Dairy Inspection in Cincinnati." The medical profession at this time is much interested in sanitary affairs, and no part of it more so than that of milk and dairies and milch cows. In this space it is impossible to abstract or even call attention to the important parts of Dr. Landis' chapter. Every one who is a subscriber to these International Clinics I advise to examine this chapter thoroughly and you will be interested and benefitted. You will be worth more to your city and to your practice.

This volume is not quite as large as some that have preceded it, it has, however, three hundred and eleven pages-possibly the illustrations are more numerous than some of the former volumes.

Progressive Medicine, A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson

Medical College Hospital; One Time Clinical Professor of Diseases of Children in the University of Pennsylvania; Member of the Association of American Physicians, etc. Assisted by Leighton F. Appleman, M. D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; Ophthalmologist to the Frederick Douglass Memorial Hospital and to the Burd School; Instructor in Ophthalmology, Philadelphia Polyclinic Hospital and College for Graduates in Medicine.

Volume 11. June, 1916. Hernia-Surgery of the Abdomen, Exclusive of Hernia-Gynecology—Diseases of the Blood. Diathetic and Metabolic Diseases. Diseases of the Spleen, Thyroid Gland, Nutrition, and the Lymphatic System—Ophthalmology. Price $6.00 per annum. Lea & Febiger, Philadelphia and New York.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Contributors: E. Wyllys Andrews, A. M., M. D., Chicago; Joseph G. Blumfield, B. A., M. D.; Francis D. Boyd, C. M. G., M. D., F. R. C. P.; Francis J. Charteris, M. D., B. Ch.; John D. Comrie, M. A., M. D.; Lewis A. Connor, Ph. B., M. D., New York; Carey A. Coombs, M. D., M. R. C. P.; John S. Fraser, M. B., Ch. B., F. R. C. S.; Herbert French, M. A., M. D., F. R. C. P.; Bryden Glendining, M. S., M. B., F. R. C. S.; Edward W. Goodall, M. D., B. S.; Oskar C. Gruner, M. D.; C. Thurstan Holland, M. R. C. S., L. R. C. P.; J. Ramsay Hunt, M. D., New York; Robert Hutchison, M. D., F. R. C. P.; A. Conyers Inman, M. A., M. B., B. Ch.; Frederick Langmead, M. D., F. R. C. P.; E. G. Graham Little, M. D., F. R. C. P.; Charles Fred, Marshall, M. D., F. R. C. S.; Bedford Pierce, M. D., F. R. C. P.; Joseph Priestly, B. A., M. D., D. P. H.; Sir Leonard Rogers, Lt. Col. I. M. S., M. D., F. R. C. S., Calcutta; James Searson, M. D.; A. Hugh Thompson, M. A., M. D.; J. W. Thompson Walker, F. R. C. S.; W. I. De Courcy Wheeler, M. D., F. R. C. S.; A. Gascoigne Wildey, Dept. Surg. Gen. R. N. 1916 thirty-fourth Year. New York, William Wood and Company. Price $4.00 net.

We have been receiving these annual volumes for many years, and we have never examined one that was more interesting or valuable than this volume that we now have before us. The past year has not only been remarkable for the enormous number of injured men our profession have had to deal with, but also for the expert and detailed investigations which have been made on every point tending to the protection of the soldier from the adverse conditions to which he is exposed. In this volume, the thirty-fourth annual issue, the editors have endeavored to bring together the results of this very large experience and investigations in a form convenient for rapid reference. The editors have given a special section to the general questions of Naval and Military Surgery, which appears at the end of the Dictionary of New Treatment. This is interesting, and will be found of much value.

The special injuries to organs and nerves are considered under their proper headings in the body of the work. We notice that great changes of view have taken place, especially in regard to the surgical treatment of wounds. Naval and and Military Surgeons being cut off from the ordinary sources of reference, it is important that they should be kept in touch, not only with the changes and new methods of technique, but with the investigations that have led to them. This is the only publication that I am familar with which under-takes this special work, and the writers have succeeded in keeping before the military surgeons all of the important points of their serious responsibilities under naval and military conditions.

The book is of unusual value, we hardly know what to say in commenting upon its value. The effort of the contributors to this volume have been very successful. The general orthographical arrangement of the matter is the same as it has been in previous volumes, which I think is superior to any annual of this kind that is published. I am very favorably impressed with the illustrations—they illustrate the text very thoroughly. It is strange that the number of plates, or illustrations, are not mentioned, there must be five or six hundred. The volume contains about seven hundred and fifty pages, its index is complete and appropriate. The publishers have given to the medical public a beautiful volume.

The Whirligig of Time, by Wayland Wells Williams. With a frontispiece by J. Henry. "And thus the whirligig of Time brings in his revenges."—Twelfth Night. New York, Frederick A. Stokes Company, Publishers.

A novel of two brothers who live in New Haven, go to Yale, see the world and have good chances. Opposites in nature, they take their schooling in different ways. They find their right work, selling automobiles and writing plays.

They love, and chance tangles their love affairs. They rebel, and it is something very like chance again that straightens out the tangles. The whirligig turns them but they find at last their part in the turning.

The chapters on their life at Yale will arouse discussion because they challenge the ideals of most undergraduates, and of American education.

It is, however, the brother relation that marks the book. Seldom has the relation between brother and brother been better treated. They feel responsible, each for the other. They reach out inarticulately for understanding and support. They cannot express, except at rare and dramatic moments, the true affection between them. Each would sacrifice himself for the other, even to the ultimate, yet the sacrifices are often unnecessary and futile, because they fail to express what is in their hearts.

The women characters, too, impress one with fascinating truth. Madge and Beatrice are really lovable, and Aunt Selina is a joy. Frederick A. Stokes Company, Publishers, New York. Price $1.30 net.

Practical Dietetics With Reference to Diet in Disease, by Alida Frances Pattee, Graduate, Department of Household Arts, State Normal School, Farmingham, Mass. Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City. Former Instructor at Mount Sinai, Hahnemann, and the Flower Hospital Training Schools for Nurses, New York City; Lakeside, St. Mary's, Trinity, and Wisconsin Training Schools for Nurses, Milwaukee, Wis.; St. Joseph's Hospital, Chicago, Ill.; St. Vincent de Paul Hospital Brockville, Ontario, Canada. Tenth Edition, revised and enlarged. Price $1.50. A. F. Pattee, Publishers, Mount Vernon, New York.

Miss Pattee has been instructor of dietetics at various times, and at various hospitals for a great many years, and she has constantly felt the need of a simple manual and text-book for the use of the nurse in the class-room. Up to the time that Miss Pattee published the first edition of this book, none could be found which fulfilled the requirements as to simplicity, brevity, and exactness with reference to dietetic treatment in disease.

The want and need for a book of this kind has been expressed by many nurses and mothers outside of hospitals. In this book the writer has endeavored to meet this need by giving the result of her knowledge gained during the past eight or ten years of practical class work, experienced in hospitals and different cities.

"The preparation of food is a science as well as an art, the chemistry of which is as precise as the chemistry of the laboratory. When we are willing to be as exact and careful in this work as we are in chemical experiments, our success will become a certainty." These are the sentiments of Miss Pattee. She says that no other technical art can, with so little practical knowledge, go as far in simplifying that which is otherwise complicated and laborious, or do more towards accomplishing that which is the chief result of all science, and which will add more to the comfort and happiness of the human race, as exact knowledge on subjects of this kind.

This is unquestionably the best edition that Miss Pattee has written, she has made many changes which are valuable in the text. This volume contains about 500 pages. We have always recommended the different editions of Miss Pattee's book, and we take great pleasure in recommending this, the Tenth Edition, it is certainly a cheap book for $1.50.

Diseases of The Skin, by Richard L. Sutton, M. D., Professor of Diseases of the Skin, University of Kansas School of Medicine; Former Chairman of the Dermatological Section of the American Medical Association; Member American Dermatological Association; Assistant Surgeon, United States Navy, Retired; Dermatologist to the Christian Church Hospital. With six hundred and ninety-three illustrations, and eight colored plates. Price $6.50. C. V. Mosby Company.

The present volume is the outgrowth of several years of study along this particular line, and presents the entire subject of dermatology in a comprehensive, and, at the same time, concise manner.

A treatise covering so broad a field as that of diseases of the skin, cannot, as Dr. Sutton says, well be based entirely on a personal knowledge and the observations of any single individual. "For this reason," the author says, "I have not hesitated to draw from the publications of other writers, selecting the material which I considered most appropriate." The author says that he has made every effort to properly credit the ideas secured from other writers.

The symptomatology, diagnosis, and treatment of the various diseases have been presented as clearly and as simply as it has been possible, and in the manner

that the author has found most effective in his college and university work.

Dr. Sutton has placed particular emphasis on pathology and treatment. As one of the pioneers in cutaneous medicines has said, no other organ of the body offers such inducements to the pathologist for study as that of the skin, and for this reason, Dr. Sutton has devoted more than the usual amount of space to this particular phase of the subject. The majority of the therapeutic measures recommended by Dr. Sutton are those which he has found useful and practical in his own private and dispensary practice.

Dr. Sutton Wisely omits obsolete methods, and those of questionable value, or of theoretical interest only. If he mentions them at all it is briefly.

The book contains nine hundred and sixteen pages, the index is as complete as any volume that I have examined for several years, the six hundred and ninety-three illustrations and eight colored plates are beautiful and properly and intelligently illustrate the text of each article. It is a book that will not go on my shelves, but will be before me constantly for reference. It is the best book on diseases of children that now exists in the English language. It is thoroughly up-to-date, and any physician or surgeon who wants to be thoroughly intelligent on the subject of skin diseases of whatever nature cannot afford to be without this valuable volume.

Volume V, No. 3. The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Edited by J. G. Skillern, Jr., M. D., of Philadelphia, June, 1916. Published bi-monthly by W. B. Saunders Co., Philadelphia and London.

New Concepts in Diagnosis and Treatment.

By Albert Abrams, A. M., LL.D., M. D., F. R. M. S., Formerly Professor of Pathology, Medical Department, Leland Stanford Junior University. Philopolis Press, San Francisco, Cal. Price, $5.00.

This represents one of the most radical departures ever made in medicine. It is an endeavor to supplant the Cell-theory by the Electronic theory. Vital phenomena are dynamic and organisms should be regarded as processes and not as structures.

In disease there is a radiation peculiar to each which is identified by the established "Visceral Reflexes of Abrams." The following is a quotation from the book extracted from American Journal of Clinical Medicine, February 16, 1915.

"It is many years since the medical profession has shown such interest in any new discovery as they have in Electronic diagnosis, first discovered by Dr. Albert Abrams of San Francisco. To be able to diagnose at the very beginning, tuberculosis, carcinoma, syphilis, pus, etc., and not have to rely upon doubtful laboratory methods is almost beyond comprehension or belief."

The book must be studied and the results attainable are worthy of the effort. It aims at mathematical accuracy in clinical diagnosis and treatment.

The virulency of disease, say syphilis may now be measured as the electrometer measures electrical potential.

Miscellaneous.

The term aerial disinfection is employed to mean the use of the air as a vehicle for diffusing, to all exposed surfaces of the room and its contents, a gaseous germicide. The disinfection of the air itself, more or less loaded with germ laden dust particles as it usually is, may be regarded as incidental, just as would be the case with water used in making a disinfectant solution. Air and water are the natural agencies for cleansing an infected apartment. Why should we not render the former germicidal as well as the latter? Some of the most prominent opponents of fumigation advocate a renovation of infected apartments so thorough as to include repapering, repainting, etc. They would subject the scrub woman, paperhanger and painter to the danger they thus clearly recognize, without the protection which a prior and efficient fumigation would afford.

An eminent scientist has placed before a symposium of health officers seven questions hereinbelow mentioned:

1. After what diseases do you think it desirable to fumigate?
2. Do you regard formaldehyde as the most satisfactory aerial disinfectant? If not, what in your opinion is better?
3. Do you think the conclusions reached by Mr. Adams justified?

Reads as follows:

"I am assuming in what follows, only two points: That you are an adult, and a non-consumptive at present. On the hypothesis:

1. You have had tuberculosis.
2. You have cured yourself of it.
3. In the process of curing yourself you have so fortified your body against it that you are safe against "catching" the disease from any other person.

4. If you now become a consumptive it will be through a relapse and by your own fault.

4. Even if this new theory of tuberculosis were generally accepted, would it not point to the necessity of fumigation after pulmonary phthisis to protect children?

5. Have you, in your experience, thoroughly satisfied yourself as to whether or not communicable diseases are commonly conveyed by objects handled by the patient? In other words, what role do fomites play in carrying infection?

6. How is it that some sanitarians who advise burning books handled by a person having a contagious disease, regard the fomite theory, as applied to things generally, so lightly that they do not fumigate the room and its contents?

7. Is not the viability of pathogenic bacteria so influenced by deficiency of light and fresh air, and so affected by atmospheric conditions in general, as to make it unwise to rely upon disease germs shortly succumbing to conditions practically unattainable without fumigation?

A careful study of the foregoing questionaire will doubtless present many phases of the varied theories based on the experiences of our leading sanitarians, and, as good citizens, the laity itself should appreciate the difficulties encountered in arriving at a majority vote. Yet a large majority (about 95 per cent.) of the state health officers, joining in the symposium, favor a continuance of formaldehyde gas disinfection on the practical basis that one cause of spreading communicable diseases (room infection) should not be neglected because another has been found (carriers), whatever the relative importance of the two agencies may be. Destroy bacteria by volatilizing formaldehyde, without ignition, in warm moist air.

SEVERE BURNS: In severe burns where medical attention is necessary, the physician will find that CAMPHO-PHENIQUE fully meets the requirements. Its anaesthetic properties relieve the pain almost instantly. Healing is quick and sure in all cases. To get the best results, use CAMPHO-PHENIQUE one part and olive or sweet oil three parts, applying same to the wound as often as necessary with absorbent cotton and the usual bandages.

"Elixir Saloform Comp., Flexner." Contains 20 per cent. Alcohol. An efficient remedy for Rheumatism, Gout, Cystitis and Uric Acid Solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. (See page XIV this issue.)

The advertisement of ANEDEMIN appears in this issue of the Journal and physicians will find it interesting—In Bright's Disease, Cirrhosis, Nephritis, Valvular Diseases or DROPSIES resulting from Cardiac, Renal or Hepatic Diseases Anedemin will be pleasing—A TROCAR in dispelling the effusion and thereafter it will strike at the very root of the trouble. Advertised to physicians only and exclusively and a remedy vastly superior to Digitalis and other old time remedies employed for the above conditions. Can be pushed, administered anywhere indicated with safety—not a cure all, but a remedy that will do the work if the work can be done. A liberal working sample of Anedemin will be mailed to physicians making request to manufacturers, Anedemin Chemical Co., Chattanooga, Tenn. A trial will convince the most skeptical and will add a new prescriber. Try it Doctor.

Cod Liver Oil in Hot Weather.

In Cord. Ext. 01. Morrhuae Comp. (Hagee) the clinician who seeks the utmost from his therapeutic and dietetic aids, will find the ideal cod liver oil preparation for hot weather. Patients who rebel against the less palatable emulsions and complain of continued intolerableness, will take Cord. Ext. 01. Morrhuae Comp. (Hagee) over long periods without being subjected to the slightest disagreeable symptoms. In securing this extraordinary degree of palatability for their product the manufacturers of Cord. Ext. 01. Morrhuae Comp. (Hagee) have not sacrificed the slightest therapeutic or nutritive effect of the oil, for their process of manufacture, whilst eliminating the grease, retains in the finished product the essential elements of the oil.

We have just received, from Messrs. McKesson & Robbins, a copy of a beautiful little calendar which they are sending out to some sixty thousand or more physicians in the United States. The object of this note is to call the attention of the members of the medical profession over the South Atlantic states to the fact that they have extra copies to send out free in the event that they receive a special application for one. Address McKesson & Robbins, 91 Fulton St., New York, N. Y.

Dr. Charles O'H. Laughinghouse.— The following is a copy of a letter that Dr. Chas. O'H. Laughinghouse, of Greenville, N. C., president of our State Medical Society, is sending out to the newly licensed physicians of North Carolina. Dr. Laughinghouse is certainly watchful after all of the interests of our State Society. Our next meeting, in Asheville, will unquestionably be a great success.

My dear Doctor:

I am writing to congratulate you on obtaining license to practice your profession in North Carolina, and to say that the Medical Society of the State of North Carolina not only welcomes you in the State but invites you to join its ranks. You need the Society—the Society needs you. It will give you opportunities to make friends among the State's Medical Men that will give you inspiration and joy for the coming years. The cream of the State's Profession composes the personnel of the Society, which will guarantee quality to its papers and discussions.

The Society meets in Asheville, April 17th., 1917. MAKE YOUR PLANS NOW TO JOIN AT THIS MEETING.

Sincerely,

CHAS. O'H. LAUGHINGHOUSE

The ampoule has attained a prominent position an aid to medication, especially where subcutaneous, intra-muscular and intravenous injections are required for immediate and prompt relief; the ampoule has also made it possible to administer with celerity accurate amounts of sterile solutions of definite strength and known therapeutic value.

It is all important that solutions for hypodermatic injections should be sterile; it is likewise evident that physicians are very frequently unable to prepare sterile solutions extemporaneously. To date no container has proven as practical as the ampould.

Lilly Ampoules are encased in strong paper tubes, and may be conveniently carried in the pocket or medicine case. Each individual ampoule and each tube is fully labeled, making it unnecessary to keep the original container for identification.

The Lilly line of ampoules is said to meet the requirements of the most exacting clinician both in quality and range of items listed.

Dakin's Remarkable Antiseptic.

One of the remarkable discoveries developed by the war is the antiseptic uncovered by Dr. H. D. Dakin, of the Herter Laboratories, who was sent to France by the Rockefeller Institute for Medical Research, where he has been working on antiseptics in a French military hospital. He has found that a synthetic preparation—a chloramine made from toluol and having the chemical name of paratoluene-sodium sulphochloramide—is not only one of the most powerful antiseptics ever placed at our disposal, but also apparently entirely free from toxicity, noncaustic when applied to wounds, and at the same time extremely stable, both in powder form and in solution.

Since a nontoxic, nonirritant and stable antiseptic has been sought for many years and thus far without success, the introduction of this substance is bound to make a tremendous impression upon surgical practice. We predict that surgeons everywhere, and particularly in the United States, will be quick to give this antiseptic the careful trial which its importance deserves. It has been placed on the market by The Abbott Laboratories of Chicago under the trade name of Chlorazene. Chlorazene is the identical product advised by Doctor Dakin in his article published in The British Medical Journal of January 29, 1916 and in his subsequent communications on this topic. Any physician or surgeon who is interested (and every physician and surgeon certainly will be) should communicate with this enterprising firm.

The Successful Treatment of Asthma.

In the treatment of asthma there is no one remedy that can be relied upon to produce more definite and permanent results than iodine. Unfortunately the use of most iodine preparations is attended by so much gastric disturbance and other ill effects, that they cannot be employed in sufficient amounts or for long enough periods to secure their full benefits.

With Burnham's Soluble Iodine, however, iodine-therapy takes on an entirely new aspect, for it can be administered "to effect" with complete freedom from unpleasant or deleterious action. In other words, for a sufficient period and in adequate dosage to get the physiological effect desired.

In the treatment of asthma, therefore, results are obtained by the use of Burnham's Soluble Iodine that are not only superior to those obtained by any other iodine preparation but by any other remedy.

Administered in doses of 10 to 30 minims in half a glass of water three or four times a day before eating, attacks of asthma are greatly reduced in severity, the intervels between the attacks grow longer and longer, and in due course in

a considerable proportion of cases—especially if treatment has been started early—they do not appear again—the patient is completely cured. In many cases of asthma, therefore, Burnham's Soluble Iodine will be found to act almost with the precision and dependability of a specific.

The Prophylactic Treatment of Hay Fever.

The best way to treat disease is to prevent it. This is not a new thought. The expressive (if possibly inelegant) "prevention is better than cure" is as old as medicine. Unfortunately, prophylactic therapeutics has its limitations, and, while the science of preventive medicine is undoubtedly expanding, these limitations are still rather sharply defined.

So far as the preventive treatment of hay fever is concerned, there is reason to believe that some real progress may now be recorded—an agreeable augury when one reflects upon the long and profitless search for a curative agent worthy to be called a specific.

Ragweed pollen extract, for example, gives promise of being an efficient immunizing agent in the autumnal type of hay fever. Its use is based upon the generally accepted theory that the ordinary hay fever of late summer and early fall, with occasional exceptions, is due to the pollen of ragweed, or to the toxic effects of other pollens closely analogous to ragweed in their protein content.

A reliable, accurately standardized ragweed pollen extract is supplied by Parke, Davis & Co. Each package contains three 5-mil (5-Cc.) vials, of 10 units, 100 units and 1000 units per mil (Cc.) respectively; one vial of physiologic salt solution for use a diluent, and one scarifier. The extract is administered hypodermatically. Injections may be made with any small hypodermatic syringe, the so-called tuberculin syringe being well adapted to the purpose. Literature giving all necessary information as to application and dosage accompanies each package. The extract may be procured through any retail pharmacist.

While good results have attended the use of ragweed pollen extract after the disease has become established, the best effects are said to be obtained by early immunization. This prophylactic treatment should begin a month or six weeks before the expected manifestation of symptoms.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page XIV this issue.)

Ragweed Hay Fever Vaccine Mulford.

There are many hay fever sufferers who are sensitive to one particular pollen and a vaccine prepared from that pollen is, of course, the best agent for affording them relief.

For this reason the H. K. Mulford Company of Philadelphia is furnishing, in addition to Hay Fever Vaccine Fall Mulford, a Ragweed pollen extract, properly standardized and known as Hay Fever Vaccine Ragweed Mulford.

Hay Fever Vaccine Fall Mulford contains the protein extract from the pollens of ragweed, goldenrod and maize, dissolved in physiological saline solution, and accurately standardized.

Hay Fever Vaccine Ragweed Mulford contains the protein extract from the pollens of ragweed only, dissolved in physiological saline solution and accurately standardized.

The injections at first may be given at about five-day intervals, the intervals being shortened or lengthened, according to indications. Ophthalmic and skin tests are not considered necessary in the control of dosage. It is sufficient to start with a sallm dose and increase gradually until satisfactory results are obtained.

There are no contraindications to the therapeutic or prophylactic use of Hay Fever Vaccine Mulford so far as known. A small percentage of patients may be hypersensitive to the protein extracts, in which case the dose may be accordingly reduced.

A complete "working bulletin" on Hay Fever Vaccine has been issued by the H. K. Mulford Company of Philadelphia, and contains valuable information regarding the treatment of this troublesome malady. It can be obtained from the company on request.

DO YOU KNOW THAT

Typhoid fever is a disease peculiar to man?

Measles kills over 11,000 American children annually?

There has not been a single case of yellow fever in the United States since 1905?

Double Pulley Extension.

It is a tube that will telescope to fit any bed. Curves out 5 inches from the foot of bed. The vertical piece that supports the pullies slides up or down or any place along the bar. The pullies are six inches apart, and by a thumb screw can be tilted either way. The adhesive going direct to pulley from either side of the foot without the block of wood, holds the foot at any angle. A loose pulley hanging to the rope to which a single weight is attached gives even traction on both sides. Can be adjusted to any bed in three minutes. Can be clamped onto any bed in three minutes. You will say, as all doctors do Why did we ever use the single pulley?.

A SUPPORT, that will hold the limb in any position and maintain it that way, and at the same time enable you to see and know that the fracture is in position. It is the only ideal way of treating a fracture of the leg or thigh, and is equally helpful in sciatica, hip-joint disease, spinal injuries, or any trouble requiring traction.

For leg or thigh, adhesive strips are placed on either side of the leg, and each strip left to extend eight inches below the foot. The ends are then folded and fastened through rings with a safety-pin. In some cases it may be advisable to use a long posterior splint, in which case pad lightly with gauze and use a two-inch adhesive around both splint and leg. By adjustment made on pulleys by a thumb screw, the foot can be held at any angle or elevation. The direct, even traction on either side of the leg holds the foot without lateral support. You don't have to use a block of wood to hold the adhesive away from the malleolus. You will find you can get all the traction necessary with much less weight than by any other method, as the pull is constant, direct, and without friction. Your patients will appreciate this method of treating fractures. It gives them far more freedom of movement, and the bed pan can be used with very little inconvenience.

You have no uncertainty as to what you are going to do when called to treat a fracture. You don't require the assistance of bystanders in getting boards, nails, hammer, and brace and bit. You are master of the situation—a professional man, not a carpenter.

DOUBLE PULLEY EXTENSION CO.,
Kinsley, Kans.

ad-9-16

A Medicinal Trochar, for the treatment of dropsical effusions, is as important an innovation of modern medical science as the therapeutic lancet for the relief of vascular congestion. The latter office has for several years been performed by aconite. The former function is fulfilled by Anedemin. This excellent preparation is a scientifically balanced and skilfully compounded mixture of Apocynum Cannabium, Urgenea Scilla, Strophanthus Hispidus, and Sambucus Canadensis. It is well enough, in a general way, to call it a Medicinal Trochar, but, as a matter of fact, of course, its action is much more fundamental and thorough than that of a trochar. It strikes at the root of the trouble, and removes the cause of the Aanasarca, rather than its results. It restores the balance between the arterial and venous systems, at the same time improving cardiac tone, and this prevents the accumulation of fluids in the tissue. The Anedemin Chemical Company, Chattanooga, Tenn., will be pleased to furnish physicians wth a liberal working sample of Anedemin Tablets for a thorough try-out. Anedemin is a remedy dependable always, can be pushed and administered with safety wherever indicated. Has no cumulative action. ad-6-16

Campetrodin.

This preparation is an oleaginous solution of Iodine in Camphor. Soothing, penetrating, powerful antiseptic, local analgesic, alterative, ideal surgical dressing.

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ad-4-17

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About Soporifics.

The measure of a soporific's usefulness is found not in any single quality but in its adaptability to the various nervous and mental conditions encountered in daily practice. Potency, although it is the first essential cannot be taken as a standard by which to judge a remedy of this class. Danger either of immediate evil effect or habit-forming too often accompanies this quality. The sphere of usefulness of such remedies is limited to cases which are under the constant supervision of the physician or trained attendant. It is essential to have a safe sedative-hypnotic for the vast majority of cases. Such a remedy must be free from habit-forming drugs and dangerous heart depressants. On the other hand it must possess sufficient potency to relieve all nervous manifestations and highly excited mental states not absolutely requiring the administration of an opiate. It must be a remedy in which dependence can be placed not only as to positive therapeutic effect, but also as to freedom from deleterious results.

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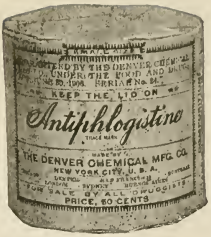

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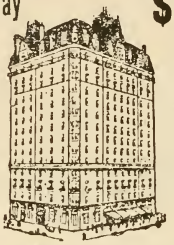

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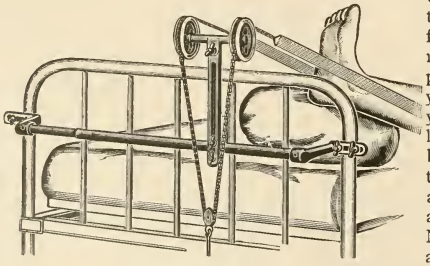

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Patented, $10 for information and proof that anyone is using a double pulley for tension other than ours.

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The Efficient Spinal Supporter.

It is the opinion of a large majority of the medical profession that in cases of spinal curvature, no matter how caused or of what nature, a spinal supporter or brace is indicated.

The efficient spinal suporter should be so constructed as to elongate the spine, for all admit that the only way to straighten a crooked spine is to extend it, to separate the individual vertebras and allow as little pressure as possible on the intervertebral cartilages and the roots of the spinal nerves. It should exert a gentle but constant life between the hips, the torso and the axillary folds, thus removing the weight of the upper portion of the body from the spine, transferring it to the hips.

The efficient supporter should be light in weight and comfortable to wear, so that the patient's general health will not be affected by weight or undue pressure anywhere. It should be adjustable that advantage may be taken of improvement in the patient's condition and easily removable to permit of examination and to facilitate bathing, massage and medication.

While giving proper longitudinal support, the efficient supporter should be flexible to allow of movement and exercise sufficient to prevent wasting or atrophy of the muscles.

Plaster of paris casts, sole-leather jackets and steel braces will, in many cases, bring about satisfactory results, but the shortcomings of this rigid form of support are apparent to the modern practitioner. A heavy and rigid aparatus, through the discomfort it brings the patient, meets with opposition from all parties concerned and is often discarded before being worn a sufficient length of time to demonstrate whatever merit it may possess.

Many cases of spinal irritation and general neuresthenia, without actual spinal curve, need a spinal supporter. Most of these patients will welcome a light and comfortable apparatus but find great difficulty in wearing the cast, jacket or brace frequently ordered by Orthopaedists.

In cases of anterior polio-myelitis, a muscle grafting is or is not done, support of the spine is indicated and should be advised at a very early period.

In cases of spinal tuberculosis, it is especially necessary to remove the weight of the upper portion of the body from the vertebras, and a comfortable, efficient appliance is indicated.

On another page in this issue appears the advertisement of the Sheldon Appliance, which we believe is the most practical and efficient spinal supporter on the market. This Appliance is made by the Philo Burt Manufacturing Company at Jamestown, N. Y.

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Each Tablespoonful Contains;

50 per cent. Best Grade Cod Liver Oil
1/40 grain Iodide Arsenic
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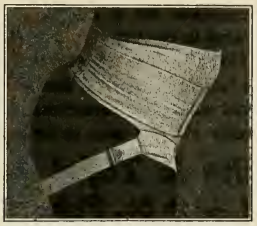

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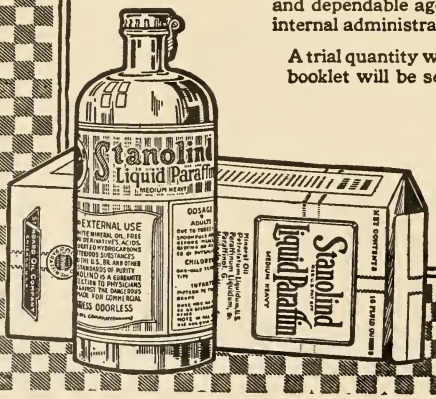

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THE DIAGNOSIS OF EARLY PULMONARY TUBERCULOSIS FOR THE GENERAL PRACTITIONER.*

By Dr. S. E. Thompson, of Carlsbad, Texas, Texas State Tuberculosis Sanatorium.

In presenting this paper I shall endeavor to prove the following:

1. We are finding only a very small per cent of our incipient tuberculous patients.

2. That this is due largely to faulty teaching.

3. That as a result of this faulty teaching, we cannot rely on the stethoscope.

4. That the microscope will not make a sufficiently early diagnosis.

5. That in using common sense and the fever thermometer we can find a large number of early cases.

We cannot deny the fact that the physician who makes a diagnosis in incipient pulmonary tuberculosis, is assuming a great responsibility. To tell a patient he has consumption is a very serious matter. To have such patients give up their business, leave their homes for an indeterminate period of time or possibly enter a tuberculosis sanatorium, is a much more serious matter. But looking from another standpoint: to delay the diagnosis and therefore the treatment during the perfectly curable stages of the disease, is the most serious question of all. To delay the diagnosis means for the patient a life of semi or complete invalidism, with the enforced abandonment of ambitions, responsibilities and purposes of life. Nothing can be more serious, more positively tragic, than a delayed diagnosis in pulmonary tuberculosis. To delay the diagnosis in typhoid fever, malaria or syphilis may cost the patient little or nothing, but a delay in tuberculosis, as a rule, means his ruin.

First, let us inquire into the question of early diagnosis and find out if these cases are being discovered. Are we diagnosing these cases when it can and should be done? This is the burning question!

From the best information I have been able to obtain, not more then 10 per cent of tuberculous patients sent to sanatoria are in the incipient stage; notwithstanding the fact that more than 60 per cent of them are classified as first stage cases by the doctors making out the applications.

In 1912, Dr. John B. Hawes, 2nd of Mass., stated that out of 350 patients at Rutland State Sanatorium, an institution exclusively for the treatment of incipient cases, only 34 per cent were first stage cases. This was when all patients were examined by special physicians appointed for that purpose. Later, when any doctor could make the examination, the per cent of incipient cases fell to 18. The remaining 82 per cent were moderately advanced, and advanced. In reviewing "500 patients, 75 per cent of whom were in the moderately advanced or advanced stages," he found that 285 were frankly advised by the first physician consulted, that they did not have tuberculosis.

Dr. Richard C. Cabot, than whom there is no better diagnostician in America, in discussing the above report by Dr. Hawes said: "I have had an opportunity to teach post-graduate students during the past ten years. I have taught five hundred graduate physicians from pretty nearly every state in the Union. I think it is not exaggeration to say that 98 per cent of these gentlemen know nothing about the physical signs of incipient tuberculosis. That is their statement to me, not my statement about them.

I have taken these graduate classes to Rutland where, by the kindness of the trustees and attending physicians, my pupils have had the privilege of examining these cases and it has been the same story year after year. We take a group of incipient cases and the students examine them carefully, when they say to me (in substance) 'what you call advanced, we call incipient and what you call incipient, we call normal lungs.' I have not myself the least doubt that this is the state of the medical profession throughout the United States—98 per cent of it.

We mustn't forget the fact, that this diagnosis is a very difficult one from the physical signs. I think it is true to say that on the whole, the history of the patient is going to be of more importance in the recognition of early cases than the physical signs, for I don't believe the average general practitioner will be able for many years, to recognize incipient tuberculosis from the physical signs. The signs are too faint, the number of men who can hear them is comparatively small."

In the same year the above report was

made, Dr. Hoyt E. Dearholt, Executive Secretary of the Wisconsin Anti-Tuberculosis Association, reported conditions in Wisconsin equally bad or worse.

In 1914, Dr. Lavenson of Los Angeles, California, in a report published in the Journal of the A. M. A., showed that in a series of cases in all stages, 81 9-11 per cent were advised that they did not have tuberculosis when they first sought relief from their symptoms.

In May 1915, before the Texas State Medical Society, I reported my investigation of one hundred cases at the Texas State Tuberculosis Sanatorium. 88 per cent of this hundred cases were not diagnosed when they first sought relief and were frankly advised that they did not have tuberculosis. The diagnoses were finally made from within four weeks to six years. At the sanatorium, 6 per cent of these cases were classed as incipient, 40 per cent were moderately advanced and 54 per cent were advanced.

I presume the conditions in these four states, Massachusetts, Minnesota, California and Texas, representing as they do, every point of the compass, is fairly illustrative. And if these reports give the true status, "There is something rotten in Denmark." There is something radically wrong somewhere and it is our duty to find and correct it.

I submit the examining physician's report on the following cases, for the reason that so far as I have been able to learn, it is in line with the conditions existing in every State Tuberculosis Sanatorium. On the second page of every application blank we send out, is printed the definition of the different stages of tuberculosis, adopted by The National Association for the Study and Prevention of Tuberculosis. The examining physicians sign just above the following:

Incipient: "Slight or no constitutional symptoms (Including particularly gastric or intestinal disturbances or rapid loss of weight); slight or no elevation of temperature or pulse at any time during the twenty-four hours. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent. Slight infiltration limited to the apex of one or both lungs, or a small part of one lobe. No tuberculous complications." In order to avoid all personal bias, I requested the stenographer to select from our files the applications of six incipients. I quote these reports:

"A" "Female. Age 27. Had tuberculosis for one year. Morning temperature 98.5, P. M. temperature 100. Loss in weight 15 pounds. Slight affection of apex. Throat envolved. Patient aenemic and weak. Incipient stage. Prognosis good."

"B" "Male. Age 50. Tuberculosis for 18 months. Morning temperature 98, P. M. temperature 101. A. M. pulse 100, P. M. pulse 108. Loss in weight 40 pounds, pale, very weak. Incipient. Prognosis good."

"C" "Male. Age 20. Tuberculosis for four months. Temperature and pulse not given. Loss in weight 20 pounds." This patient was in a dying condition. Returned home and died in three weeks.

"D" "Male. Age 32. Had tuberculosis for three months. Morning temperature 98, P. M. temperature 100. Pulse 100. Incipient. Prognosis good." This patient was kept in bed for five months. Returned home and died.

"E" Male. Age 33. Tuberculosis for six months. Morning temperature 98, P. M. temperature 100. Loss in weight 30 pounds. Incipient. Prognosis good." Entire chain of right cervical glands infected and range in size from a buckshot to an English walnut. Patient has been in bed four months—no improvement.

"F" "Male. Age 48. Morning temperature 99, P. M. temperature 100. Loss in weight 20 pounds. Right apex infiltrated. Prognosis excellent." This patient is still confined to his bed after seven months in the sanatorium. Reclassified on entering the Sanatorium, all these were put in the advanced stage.

If the condition presented up to this point represents the attitude of our physicians to early tuberculosis, there must be some strong reason for it. I shall now endeavor to present what I believe to be largely responsible for this most disastrous condition of affairs.

As I see it, faulty teaching has given us the wrong idea of tuberculosis. Our clinical picture of the early stage of this disease is wrong. Twenty-five hundred years ago, Hippocrates described a tuberculous patient as pale, wasted, bright eyes, burning cheeks, continuous cough, night sweats, high fever. This is tuberculosis alright, but it is the closing scene.

I shall now quote from our most popular text books on practice and endeavor to show that there is little if any change in this Hippocratic picture. And I wish to stress the fact that these are the books from which the physicians get their ideas of tuberculosis. I do not think it exaggeration to say that some of these books are in the office of every doctor, and he relies on them. Only those specially interested in tuberculosis, buy books treating this subject alone.

Practical Medicine, by Thompson, pub-

lished July, 1900, page 245, under Symptoms:

"1. Haemopthysis, which may precede any other evidence of local trouble and be repeated several times at intervals of months or a year or two. In other cases it is the forerunner of very rapid local changes.

2. Acid dyspepsia and anaemia with palpitation and lassitude.

3. Obstinate cough following a slight cold, a protracted winter cough in several successive seasons.

4. Progressive loss of weight and strength, although the patient may be eating and sleeping well.

5. Chills, fever and sweating as in malarial fever.

6. A continued hectic type of fever, prolonged, of low grade and not yielding easily to treatment."

Practice of Medicine, by Osler, published in 1895, under Symptoms, page 240: "Pain in the chest may be early and troublesome or absent altogether. It is usually associated with pleurisy and may be sharp and stabbing in character and either constant or felt only during coughing. Cough is one of the earliest symptoms and is persistent in the majority of instances from beginning to end."

As these pictures were drawn fifteen years ago, you may think them out of date. I will therefore quote from our latest chapters on tuberculosis.

Medical Diagnosis, by Anders, published in 1911, page 762, under "Incipient Phthisis." "The patient usually complains of an increased sense of languor, weakness, and moderate but progressive loss of weight. He may also experience chilly sensations at different times during the disease. The appetite is poor and fatigue and dyspnea follow every Slight Exertion, and the patient has for months, probably years, been unable to take food rich in fats. A distaste for fats is a highly significant symptom. Not infrequently gastric disturbances—e. g., anorexia, with nausea and possibly vomiting after a night's sleep, epigastric distress, eructation of acid substances, and flatulency are among the **EARLY SYMPTOMS**, and indeed it is often for these that the patient consults the physician, believing that he is suffering from gastric disease. Occasionally slight, pleuritic pains are experienced, and if PROSTRATION IS WELL MARKED, there is PRONOUNCED SWEATING AT NIGHT. Cough is a common symptom, although in many cases it is but slight and may be accompanied by but a moderate amount of glairy expectoration."

Page 763: "Slight fever is ordinarily present at some time during the 24 hours, and in certain cases chills, followed by exacerbations of temperature and profuse sweating, are present; it is in this particular class of cases that the disease in a measure simulates malaria."

If this chapter is not late enough to prove my conteantion that we are still looking at the Hippocratic picture, I will quote an authority whose book is still warm from the press.

Tyson's Practice of Medicine, Sixth Edition, Revised and published April, 1915. Under symptoms, page 228: "The onset of tuberculosis of the lungs is by no means uniform. Notwithstanding the fact that its insidious nature is well recognized, its initial stage is often overlooked. The victim is scarcely appreciably ill. He may have lost flesh and strength continuously. He may even say that he had no cough, while close questioning will ascertain that he has had a slight hacking cough for some time, worse in the mornings. Soon intermittent fever, a BRIGHT EYE and the COUGH with EXPECTORATION is a conspicuous symptom. Yet during all this the patient is cheerful and denies that there is much the matter with him. In another instance the individual is subject to colds, he takes cold repeatedly, and each attack while passing away, yields more stubbornly than the previous one, and finally one comes that persists. There is daily fever which abates to return again, EMACIATION is evident, and the BRIGHT EYES and BURNING CHEEKS AND NIGHT SWEATS again attest the ARRIVAL of this dread disease."

Given this picture, the man in the street can make the diagnosis. With these teachings before them, physicians will not even suspect early tuberculosis. If we are to detect this disease in its incipiency, these chapters must be rewritten; the pictures they now present must be turned to the wall. It is just as consistent and less dangerous, to wait for the hair to fall out, the throat to ulcerate and the body to scab before making the diagnosis in syphilis.

Let us refer to the definition of an incipient case, let us get before us the fact, that a tuberculous patient, does not at the beginning of his illness, look bad or often feel really sick. The diagnosis should be made before the patient is obviously ill. He should in no way differ in appearance from a perfectly normal individual. I recently examined a young woman who weighed 216 pounds and found that she

had active tuberculosis in both lungs. Her only complaint was that she felt bad and was tired every day.

Dr. Cabot charges that 98 per cent of us can not find anything abnormal in the lungs of our incipient patients. If this is true, and I do not doubt it, let us look for the reason. Again I refer you to our teachers, to our text books authors. Osler, page 246, under auscultation: "On the other hand there are cases in which the earliest sign, is a harsh, rude respiratory murmur. On deep breathing it is frequently to be noted that inspiration is jerking and wavy, the so-called cog-wheel rhythm; which, however, is by no means confined to tuberculosis. With extension of the disease, the respiratory murmur is harsh, and when consolidation occurs, whiffing and bronchial. With these changes in the character of the murmur, there are rales due to accompaning bronchitis. When softening occurs, they are louder and have a bubbling, sometimes a characteristic clicking quality."

Practical Medicine, Thompson, page 257. "Dry crackles, or sub-crepitant rales are also an EARLY sign, which vary in coughing and at the end of deep inspiration. They may be coughed away entirely at first or become more moist. Later, loud bubbling moist rales, widely disseminated, are heard, which should be tested in different phases of respiration and by coughing."

This is what we are taught to listen for. I graduated eleven years ago and I was taught to listen for rales, gurgling sounds, metallic tinkles, signs of cavitation; in fact, "Alexander's Ragtime Band," and if I did not hear them, I considered my patient's lungs clear. These signs are produced by marked ulceration and softening. As a rule, when this condition is reached, our patient is doomed. At this time, we may perhaps, prolong life; but the chances for perfect recovery, are indeed very uncertain. In my judgment, this teaching accounts for our inability to detect the slight departure from the normal respiratory murmur, heard in the lungs of incipient patients. If we are taught that measles is characterized by a cutaneous eruption, we will, in its absence, withhold the diagnosis.

I shall now consider the microscope as a diagnostic agent in early tuberculosis. The first part of 1915, I endeavored to find out what per cent of incipient patients showed bacilliary sputa. I wrote to every individual and organization from whom I thought it probable to get this information. The National Association for the Study and Prevention of Tuberculosis, stated in substance, that it was impossible to get any definite information on this point, owing to the fact, that most doctors refused to make a diagnosis in the absence of positive sputa; and concluded by saying, that possibly 40 per cent would show germs. The report from The Boston Consumptives' Hospital stated, that 75 per cent of their cases were diagnosed before there was either cough or sputum. This is nearer as it should be. It was stated before The Southern Medical Association at Richmond, Virginia, (1914 meeting) that 35 per cent would show positive sputa. To average these reports, gives us 33 1-3 per cent, in whose sputa we would find the bacilli. Now, if this is even approximately correct, it follows that in 66 2-3 per cent of our early cases, we can not rely on the microscope; because in so doing, two-thirds of our patients will pass to the advanced stages before having the diagnosis made. Withholding the diagnosis for a positive sputa and waiting till our patients "looks like" he has tuberculosis, is more fatal than Sydenham's injunction to "ride and rough it" as a cure.

Why do our physicians wait for germs in the sputa? Osler says: (Page 257) "So ESSENTIAN is the examination of the sputum in the EARLY diagnosis of phthisis, that I would earnestly insist upon the more frequent employment of this method. There is no excuse for its omission, since if the practitioner has not command of the necessary technique, there are labratories in many parts of the country at which the examinations can be made. EARLY detection is of vital importance, as the successful treatment depends upon the measure taken before the lungs are extensively envolved."

It is easy to find the physicians support, however fallacious it may be, in refusing to make a diagnosis when there are no germs in the sputum.

Before the appearance of germs in the expectoration, there must be (as a rule) extensive ulceration, softening and breaking down of the lung tissue. To save our patients, and to check the spread of the disease; the diagnoses must be made and treatment begun before this condition is reached.

As a serious matter of fact, our authors to the contrary notwithstanding, every case of tuberculosis should have the diagnosis made before there is softening and therefore germs. It is worse than tragic to permit a large per cent of our tuberculous patients to reach the practically incurable stages before making a diagnosis. Within a comparatively recent date, the

diagnosis of tuberculosis was considered equal to signing the patient's death warrant; and if we wait for a positive sputa, wasted form, bright eye, burning cheeks and night sweats, its meaning will remain unchanged.

If, as it appears, very few of us can detect anything abnormal in the chests of our incipient patients, and we cannot rely on the microscope for early findings; what then may we do to find these cases at an earlier date? As I see it, we should here apply the question of common sense and the fever thermometer. What then are the common sense symptoms for which we must look, and upon which our opinions must be based? Let us bear in mind that the early symptoms are, as a rule, toxic in character. They are due to absorption. The most common symptoms are:

1. Fatigue, an unreasonable fatigue, without sufficient exercise to produce it.
2. The feeling of being "run down," a persistent state of feeling bad.
3. An appetite with out edge, a persistent indifference to food.
4. Loss of energy and mental tone.
5. Indigestion or slight loss of weight.
6. Slight morning cough or tendency to clear the throat.
7. Chest pains, usually between or below the scapulae, pains aching in character.
8. Reflex hoarseness.
9. Rapid pulse, 80 or above.
10. Persistent subnormal morning temperature.
11. Afternoon temperature elevation, 99 or above.

These are among the earliest symptoms and when they persist or persistently recur, no other diagnosis is justifiable until we can POSITIVELY eliminate tuberculosis. It may be urged that the early symptoms are multiform and therefore more or less confusing. This is true, but when persistent, they tell the story.

There are a few other symptoms, some times early, that must not be overlooked. A hemorrhage from the lungs, slight or severe, should be considered tuberculous in origin unless we can prove otherwise. An idiopathic pleurisy means tuberculosis in 95 per cent of all cases and should not be dismissed as intercostal neuralgia or rheumatism.

With the continuation of any of the above symptoms, our suspicion of tuberculosis should be thoroughly aroused. With this in our minds, we should go thoroughly into the patient's history; personal, family and environmental. Those who know most about this disease, put environment above heredity. Without the seed the disease can not develop. If the history shows that our patient tires from a usual day's labor, that he persistently feels bad, that his appetite is below par, that he suffers from chronic indigestion or symptoms of lagrippe, bronchitis or a cold, or has been exposed to tuberculous people, we should take his temperature and pulse at seven, ten, twelve, two, four and eight each day for a week. If his morning temperature is persistently subnormal, below 98, and his afternoon or evening temperature is elevated, 99 or above, and his pulse goes above 80, we should not hesitate to make a diagnosis of tuberculosis. It is said that any two of the symptoms given in Norris' Quartette justifies the diagnosis. His four symptoms are:

1. Rapid pulse.
2. Slight afternoon temperature.
3. Slight loss of weight.
4. Slight cough.

These symptoms are more significant, more reliable in tuberculosis, than periodic chills and fevers are in malaria. To sum up: A rapid pulse, a subnormal morning temperature with afternoon elevation; the sense of feeling bad, and fatigue before the day is over, is tuberculosis unless there is indisputable proof to the contrary.

As a preventive measure in tuberculosis, the early diagnosis stands first. If every case of tuberculosis should be discovered before the victim begins to throw off germs, and vigorous treatment instituted, the spread of the disease should be reduced at least seventy per cent or more. A tuberculous subject cannot convey the germs to others unless his case is an open one, and every case should be discovered before it reaches this stage. When the disease is not discovered before reaching this point, it is because the patient does not consult his physician early enough or the doctor fails to find it when he is consulted. The discovery of every case of tuberculosis before it reaches the infectious stage, would in my judgment, do more toward preventing and eliminating this disease than everything else combined. As a preventive measure, early diagnosis stands at the head of the column. It is a physical impossibility for tuberculosis to be conveyed from one person to another before the period of germ elimination is reached. What an enormous responsibility this places upon the members of the medical profession.

In closing, let me beg that we make our attitude towards tuberculosis one of eternal suspicion. The "White Plague" is every where. It is the most common, the most frequent of all diseases. The

finding of our early cases is the general practitioner's burden, and if he will depend less upon the stethoscope and the microscope and rely more on common sense and the fever thermometer, he will find a much higher per cent of his early cases and thousands of human lives will be saved annually.

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Sam E. Thompson, M. D.,
Assistant Superintendent,
Texas State Tuberculosis Sanatorium,
Carlsbad, Texas.

HYSTERECTOMY; REVIEW OF A SERIES OF CASES.*

By M. H. Biggs, M. D., F. A. C. S., Surgeon to the Rutherford Hospital, Rutherfordton, N. C.

In considering the indications for hysterectomy and the details in the technique of the operation we encounter widely varying views and practices.

There can be no controversy in the matter of early cancer, either of the cervix or fundus. The entire organ must be removed, preferably with the tubes and ovaries and the greater part of the broad ligament. In advanced cases I have confined my efforts almost entirely to palliative measures, in order that early cases may not be discouraged by failures in late cases. This position seems to be justified by a marked increase in the number of operable cancer patients that are presenting themselves, and in the readiness with which they submit to the operation.

Some of you may have followed the school which is content with applications of the Roentgen-ray to myomata and fibromata of the uterus. There is no question that many of the symptoms, including hemorrhage, caused by these growths are cured or ameliorated by the Roentgen-ray, and that the size of the tumors is markedly reduced, but there may still be discomfort and interference with function in adjacent organs due to the remaining pathology. To my mind the Roentgen-ray treatment should be reserved for those cases in which there is some adequate contraindication to the operation, or as an adjunct to the operation.

Conservation of one ovary alone in hysterectomy is subject to lengthy debate. Prolongation of the sexual life of a young woman and retention to her of the ovarian secretions is certainly desirable when it can be accomplished without suffering or disability. This can only be secured when the ovary is suitably situated and has an unimpeded blood supply.

When it is necessary to sacrifice both tubes and both ovaries, the uterus should be removed when the patient's condition warrants the slightly prolonged ether period. I am thoroughly convinced of the truth of this statement, after at first reluctantly adopting the procedure but with recent uniform adherence to the practice. It is particularly advisable in inflammatory cases, when the uterus is firmly bound down posteriorly and perhaps covered in above and in front as well by adherent structures. Frequently in these cases when freed of adhesions the uterus presents on a large part of its surface areas denuded of peritoneum or covered by oozing fringes of connective tissue to which any adjoining structures coming in contact will certainly become adherent.

In the majority of cases requiring a bilateral salpingo-ophorectomy we are dealing with a uterus the seat of disease, and in any case a functionless organ and one that may well be the seat of cancer at a later period. If we leave an unhealthy uterus and the woman has even leucorrhoea, she can not be considered cured. We can usually peritonize satisfactorily after a hysterectomy in inflammatory cases, and if a thorough operation and careful peritonization are done convalescence is incomparably better and sequelae relatively nil.

Preparatory treatment is of great importance. Free purgation is found necessary in most of our patients. This, preferably, should be accomplished at least two days previous to the operation so that the patient may have two comfortable, undisturbed nights before the operation itself. Rest in bed is insisted upon during this period, in order to equalize the circulation and to accustom the patient to voiding and having bowel movements while on the back, as well as to meet the need for general bodily rest which is usually manifested. Water is

*Read before the North Carolina Medical Society, Durham, N. C., April 18, 1916.

given freely, as all secretory functions are generally subnormal. Often on admission the patient is voiding between twenty and thirty ounces of urine which, with water alone, is increased to perhaps seventy ounces in the twenty-four hours. We certainly find that the more water we get into a patient before operation the less is requested or required after it.

Functional test of the kidneys should be made when indicated. If blood-pressure is abnormal it should be corrected when possible; no hard and fast rules can be laid down, however, as to prohibative pressure, either high or low. Your experience has probably been similar to mine. I have done a hysterectomy on a patient with a pre-operative systolic pressure of eighty with an absolutely normal convalescence. Recently a patient was brought to me with an early cancer of the cervix, whose weight was 260 pounds, the urine showed nearly one per cent. of albumin and granular casts, there was a mitral murmur and the systolic pressure was 235. Her physician expected an immediate operation, which, however, was postponed for ten days. When operated the systolic pressure was 170, albumin and casts had nearly disappeared, she was voiding between sixty and seventy ounces of urine a day, and a vaginal hysterectomy was done with entire success.

So far we have no index as to how a particular heart is going to withstand an operation. I have frequently asked our medical colleagues how we are to determine the heart that is going to fail under the strain, but they have not told me.

Technique. I prefer a median incision, because I believe there is less hemorrhage, that the resulting scar is stronger, that there is less danger of wounding the epigastric vessels in making the incision and in closure and less trauma to these vessels in retraction, and that there is less liability to subsequent development of hematomata and phlebitis.

The skin should be kept covered throughout the operation. If the uterus can be well elevated or even delivered from the abdominal cavity, ligation can be more easily accomplished and there is less danger of wounding the ureters, as the uterus is lifted away from them.

My choice of ligatures for the ovarian and uterine arteries is silk, because it can be tied under great tension and the knot is less likely to slip. Perhaps my best warrant for the use of silk in this situation is that I have never had a secondary hemorrhage and am afraid to make a change.

Unless the operation is done for malignancy, the stumps of the round ligaments and broad ligaments are left long. This is done in order that the round ligaments, and perhaps the broad ligament stumps, may be anchored into the cervical stump and give it support without making undue tension.

In doing a supravaginal hysterectomy the amputation is made rather low, and all or as much as possible of the mucosa of the cervical canal is removed with the uterus by a conical dissection. When this is done carefully the entire mucosa is generally excised. Two great advantages of this method are that the woman will certainly not have leucorrhoea from the remaining stump and a frequent starting-point for cancer is removed. While I know that it is not uniform practice to close the cervical stump I have always done it, and it is particularly indicated when a conical dissection is made, the sutures dipping deep into the cervical tissue so as to prevent bleeding.

Peritonization is time-consuming, but it is indispensable in a finished operation. The peritoneum should be sutured over all stumps and cut edges of tissue, so that when the operation is completed there are no exposed raw surfaces. This leaves the pelvis clean, prevents adhesions, overcomes much post-operative pain, and assures a smooth convalescence and freedom from complications.

A clean hysterectomy with proper peritonization will do as well after operation as a clean appendectomy, and the mortality should not be much higher.

The vaginal route is chosen for cancer of the cervix, and for cancer in any part of the uterus in fat women.

For anesthesia I have always used straight ether given by an experienced anesthetist.

I know of nothing that is more helpful to the surgeon than taking account of stock. If we have formulated certain more or less elastic rules and principles to govern us in certain conditions, we must cast up our accounts at intervals and see where we stand. What is the net profit in results to our patients and to ourselves? Do the followon records show gain or loss in our ability to relieve diseased conditions, and to leave our patients not only rid of their original pathology, but in a condition of comfort and well being.

I have purposely chosen for this report a series of 134 consecutive hysterectomies with eight deaths, instead of the last 108 consecutive cases in which there have been three deaths because the former may more nearly represent the average.

Instead of giving a detailed list of diag-

noses, I have grouped the cases as follows:

Fibromata and myomata of the uterus, 70 cases.

Cancer of the uterus, 22 cases.

Bilateral subacute or chronic disease of the adnexa with adhesions, 30 cases.

Acute disease of the adnexa with pelvic peritonitis, 2 cases.

Chronic glandular endometritis with persistent bleeding, 5 cases.

Ectopic gestation with disease of the opposite side, 3 cases.

Ruptured uterus with peritonitis, 2 cases.

Among interesting compications in the series were: two cases of ectopic gestation associated with fibroids; one pregnancy of eight and a half months impossible of delivery on account of the siz and situation of a fibroid, in which a successful Cesarean was done; and one uterus didelphus with bilateral hydrosalpinx and extensive adhesions.

The average records in the series at any time after operation were: pulse 116; temperature 101 degrees.

The average highest records twenty-four hours after operation were: pulse 96; temperature 99 2-5 degrees.

The average time consumed in the operation was fifty-five minutes.

The average amount of ether administered was 7 1-3 ounces.

The average stay in hospital, including the period preparatory to operation was nineteen days.

No hypodermic or other medication was given before operation unless especially indicated. After operation sufficient morphia was administered to prevent undue suffering and restlessness.

There were no cases of postoperative pneumonia, ileus or acute gastric dilatation. There was one case of phlebitis; one of prolapse of the fallopian tube into the vagina in a vaginal hysterectomy; one vesico-vaginal fistula, the cause of which is not known but which healed in a few days when a selfretaining catheter was introduced and the patient kept in the prone position. In one pelvic inflammatory case in which the mucosa of the cervical stump was not removed there was a persistent leucorrhoea. This was cured by destruction of the mucosa with curette and cautery.

The number of total hysterectomies was thirty of which seven were vaginal, and two were by the combined method. Of the eight deaths, four were in cases of fibromyomata, and four in cancer patients.

In every case diagnosed as cancer there has been an expert microscopic examination of the removed uterus unless the macroscopic appearance was clear and positive. In ten cases of suspected early cancer curettings have been submitted for microscopic report. By this means the clinical diagnosis has been confirmed in all but two cases. These two were operated and both proved to be cancer. One of them was of extreme interest; the pathologist of one of our largest gynecological laboratories stating in his report that it was the earliest case of the mural or interstitial development of cancer ever received at the laboratory, and that it will be the subject of a separate published report by him.

There are a few cases too recent to report upon except as to the operative outcome which has been done. Of the balance we have positive knowledge in 84 of the 126 cases. Three are known to have died since they left the hospital. Two of these were recurrences in cancer of the uterus, and one fibroid case was killed in a runaway accident.

The last letters to patients, sent out since January first of this year, were accompanied by a blank on which were a uniform set of questions to be answered by them. Those of you who have done any of this followon work know how difficult it is to secure reliable data and positive statements. We tried to word our questions so that they would be understood and so that most of them might be answered by yes or no, or a similar definite statement. The results are unusually satisfactory from this standpoint and in very few instances has it been necessary to deduce in order to record the patients' intended reply. Where we have failed to receive replies it is because we have not been able to reach the patient either directly, or through the family, known friends or a physician.

Among the questions were the following:

1. Did you have the same sort of trouble after operation as you had before, if so for how long, and do you have it now?

2. Were you completely relieved of your trouble by the operation?

3. Have you had any return of the original trouble, and if so when did you first notice it?

4. Were you very nervous after leaving the hospital and if so for how long?

5. Do you have any trouble in the cut where you were operated?

6. Have you been operated on since your womb was taken out?

7. How long after operation was it before you felt well and strong and could work?

Questions 1 and 3 were designed partly as a check on question 2 which reads, "Were you completely relieved of your trouble by the operation." To this question the responses show an unqualified affirmative reply in 72 of the 81 cases; a perfectly indefinite reply in one case; an evasive answer but a statement that she had not had any return of the trouble in two cases, and a positive statement that there had not been relief in six cases. Based on these replies, we may say that 74 women, or about 92 per cent. consider themselves entirely relieved.

The average duration of nervous symptoms after operation was seven months. In striking this average I have included those patients who stated that they were still nervous at the time of the last report. Very few of the patients operated on had passed the natural menopause, and those that had not were told that an artificial menopause would be produced, and that they must expect the symptoms accompanying it to persist for from six to twelve months. The average actual existence of nervous symptoms has therefore, come well within the prediction.

To the inquiry as to whether there was any trouble in the wound, one patient reports the existence of a small hernia. This was in a drainage case.

Only three cases are known to have been reoperated; one for recurrence in a cancer of the cervix; one case of fibroid tumor for hernia in the wound, and one case of fibroid tumor subsequently operated for a primary cyst of the liver. These reoperations were done in the Rutherford Hospital.

The reports show great variation in the time elapsing between the operation and resumption of duties. There are always some patients who "are not well yet and can not work any." Striking a general average in this series, and including those reporting that they are not yet well, the time required for complete recovery was three months. I have always felt that the period of entire recovery after capital operations is longer than most of us appreciate. We are apt to lose sight of the fact that it is not alone the operation, but the debilitating effects of the diseased condition as well, that must be overcome.

The great majority of patients represented in this series were from the working classes of very limited means, unable to live the sort of life which would favor early recovery, and compelled to do rather arduous labor at an early date after leaving the hospital. Can we reasonably expect these suffering, constipated, toxic, anemic, overworked women to come to themselves in less than three months after an operation of such magnitude?

Greater attention to detail in the preparation of patients and in the operation itself has enabled me to secure progressively better immediate and ultimate results. This is shown both in reports coming from patients and in the fact that in the last 108 cases there have been only three deaths. One of these was from peritonitis. The other two were what might be called unfortunate deaths, both being from cardiac embolism in colored women one on the twelfth day the other on the fourteenth day after operation. Each of these two patients had made an apparent complete recovery, was up and about and ready to return home.

THE CALORIC VALUE OF INFANT FEEDING.*

By J. Buren Sidbury, A. M., M. D., Wilmington, N. C.

The caloric requirements for the working adult have been very carefully determined, the heat-expenditure and the food intake with a certain definite amount of exercise calculated. The amount of food required for such work has been definitely determined and the proper number of calories needed to meet this metabolic process accurately determined. But not until recently has there been any attempt to calculate the caloric needs of the infant or rapidly growing child. What was done was to give the child the breast when possible, and when such was not possible the battle in the dark began—that of finding some food the infant would take or could take and live on—the greater per cent of them either did not do well or finally died. Those who got results did so by ordering by empiricism, and it has only been within the past twenty-five years that anything really scientific has been done in infant feeding. The first intelligent step was the attempt to get a food that corresponded as nearly as possible with that of mother's milk. Though the milk of many animals has been tried with varying degrees of success, that of cow's milk has been found next best to mother's milk when properly diluted. The fault with cow's milk is usually not with the milk, but with the individual who prescribes it, though the fault is usually laid to the milk or to the infant's digestion.

With the progress in infant feeding, as with every other progress or development, some particular thing has been selected to explain away all shortcomings

and defects, and each in turn has not stood the test when standing alone. First, after deciding that cow's milk was the proper food for babies when breast milk could not be had it was thought that the proper sterilization of milk would solve the problem. However, much to our sorrow, clean milk has not solved the many problems in infant-feeding. Though it has played a very important role. Next it was said that all the troubles were due to the proteids in cow's milk which were more difficult of digestion than the proteids of mother's milk, and next came the fats, and finally the sugars were charged with the fault. Still some one else says that the proper way to feed the child is to determine the amount of calories needed, give this amount, and your troubles will be solved. But this method, as all others which have been used alone, has fallen short the mark.

Before going further we must define what we mean by a Calorie. And when I use Calorie here I mean the large Calorie. A Calorie is the amount of heat which is required to raise the temperature of one litre of water one degree Centigrade. It matters not from what source this amount of heat is raised. It may result from the combustion of coal, wood, or gas, or by the combustion of fats, sugars or other foods in the process of metabolism. It is that definite amount of heat and may be derived from any source. Every animal of whatever variety liberates a certain amount of heat, and life depends upon their ability to produce and liberate this.

In the summer time there is much more heat liberated than is necessary to keep up the body temperature and by means of evaporation the body is able to get rid of this extra heat. Theoretically then, we should fast in the hot weather and eat bounteously in very cold weather if the main factor was that of maintaining heat-equilibrium. Should there be only as much heat-energy taken in as given off there would not be any supplied for replacement metabolism or tissue growth. We can not determine the amount of food needed to produce growth and development by the amount of heat-energy liberated. Hence we may say that the Caloric method alone is not a safe guide in successful infant feeding, or, as for that, any feeding.

Caloric Requirements. According to most recent authorities the normal healthy baby requires:

Age	Total Caloric Needs	Calories per Lb.
1 to 3 months	400-500	Calories 50
3 to 6 months	500-700	Calories 45
6 to 12 months	700-1000	Calories 40
1 to 2 years	1000-1100	Calories 35
3 years	1100-1200	Calories 35
4 years	1200	Calories 35
8 years	1400	Calories 30
12 years	1600	Calories 25

While this will not fit every baby any more than any one food will fit any one baby, it is given as an average which will be found to be sufficient in the majority of the cases and will be a landmark from which to work.

But it is not the above baby that we as Pediatritians and Physicians have trouble with. The normal baby has wide limits of variation in his digestive ability, which is very untrue of the marasmic or premature baby, and it is with this baby that our skill and ingenuity as infant feeders are tried so throughly. The ability of this type of baby to digest food is limited, and, in addition, this baby requires more calories per pound of body weight than the normal baby, which, as we can easily see, makes the task doubly difficult.

Grulee says that 45 calories per pound will prove to be the maximal caloric requirement in 24 hours in a vast majority of cases. He gives charts showing gain in weight going parallel with the increase in caloric values up to a certain point, which point he calls "maximum tolerance for food," and says that when the total calories are pushed beyond this point the maximum tolerance for food falls, and likewise there is a fall in weight. This "maximum tolerance," according to him is rarely above 45 calories per lb. of body weight in 24 hours. While such observations may hold true in a great many cases (normal babies), I think we will frequently find children, or infants, who will require much more, as much as 50 to 60 calories per pound before a satisfactory and steady gain in weight is established. This is unquestionably true with the premature and marasmic babies as well as many others not so poorly nourished. Such babies frequently require 60 to 75 calories per pound of body weight, and, though I always believe in starting low with the feedings and working up to find our "maximum tolerance," I do believe we may lose much valuable time with

these poor babies by starting lower than 40 calories per pound of body weight in 24 hours. It was my privilege while in the New York Foundling Hospital to have charge of a very large number of babies who were below par physically, and of many marasmic babies, and I think I would not be underestimating the case at all if I say that every one of the marasmic babies received not less than 50 calories per pound and many received 60 calories and above, which amount was found by experience to be necessary to produce and sustain any satisfactory gain in weight. While it may be said that these cases were exceptional in that they were institutional babies and not a fair sample, the same experience was not infrequently met with in the Babies' Hospital Dispensary, New York, and I have met with the same experience in the Babies' Clinic in Wilmington. Many of these babies are started as low as 40 calories per pound and lower even to avoid intestinal upsets and to get a line on the baby's digestion, though it was always necessary to increase to 50 calories per pound and above to get any satisfactory gain in weight.

It has been held by Finkelstein,[1] Getting,[2] Mayerhafer and Roth[3], that infants under weight require more calories than those well developed and they claim that they should get as many calories as if they had normally developed.

Dennett[4] says that the average normal baby will do well on from 110 to 120 calories per kilogram and that emaciated babies require from 150 to 170 calories, and the only moderately emaciated from 130 to 150 calories per kilogram in 24 hours.

Factors Determining Caloric Needs.—Habits of healthy as well as of sick infants vary with the individual. As these individuals vary, so their caloric needs vary. A child who is phlegmatic and sleeps most of the day and night will certainly not consume as much heat energy as one who moves around, and is kicking or crying the greater part of the 24 hours. By means of experiment it has been shown that the metabolism may be increased from 40 to 100 per cent. "above the basal metabolism" by a change from repose and quietude to active exercise or work. Breast fed infants require less energy to digest and absorb breast milk than cow's milk.

The physical condition of the food must always be considered if we think intelligently of infant feeding. It has been proven by animal experimentation that 40 to 100 per cent. of the energy or caloric value of a food may be consumed in digesting it. It has also been proven by Armsby that an animal will die of starvation on certain kinds of food more quickly than if they were not fed at all. This can be explained by the fact that much energy is consumed in the attempt to digest this food and but little food value was gained therefrom, a negative balance having been produced.

Methods of Determining Caloric Values in Milk Modification.—If we wish to figure out the caloric needs of any child all we need to rememebr is that a child at birth should have 50 calories per pound and at one year 35 to 40 calories per pound in 24 hours, and that an ounce of fat yields 300 calories and one ounce of proteid and carbohydrate each yields 130 calories. With this information at hand one can in a moment compute the caloric value of any food and compare that with the caloric needs of the individual child.

For example, if one is feeding a 20 pound baby of 10 months on 5 bottles of 8 ounces each ,or 40 ounces of a milk modification containing 3 per cent. fat, 6 per cent. sugar, and 3 per cent. proteid, we estimate the caloric needs by multiplying 20 pounds by 40, the caloric needs of a child that age, and we find we need 800 calories. The caloric value of 3 per cent. fat in 40 ounces is 3 per cent. of 40 ounces or 1.2 ounces which multiplied by 300 calories, the value of one ounce of fat, gives calories of fat in our mixture. The caloric value of proteid and carbohydrate is the same—130 calories each to the ounce; so they can be added together and our 6 per cent. sugar and 3 per cent. proteid give us 9 per cent. of our 40 ounces or 3.6 ounces of sugar and proteid, which multiplied by 130, the caloric value per ounce of each, gives us 468. This added to the caloric value of our fat gives us 828 calories, the total caloric value of the food.

Another method of calculating caloric values of milk percentage mixture is one recommended by Fraley (Arch. Ped., 1912, xxlx, 123) which is very simple, but not so accurate as the above method, but under ordinary circumstances serves the purpose if we remember that it is a little low.

Let F—percentage of fat, S—the percentage of sugar, P—percentage of proteid, and Q—total quantity given in 24 hours, then,

2 F plus P multiplied by 1¼ Q, equal total calories.

A ready method of calculating caloric needs for well babies is this one which is noted for its simplicity and the ease with which it may be used. For example, take a child of 8 months who weighs 20

pounds. This child should have 40 calories per pound of body weight in 24 hours. Multiply 20, the number of pounds, by 40, caloric needs per pound, and we get 800 calories needed. If we subtract from this 120 calories, the caloric value of one ounce of milk sugar which we usually give, we have 680 calories. Now if we divide 680 by 20, the caloric value of one ounce of milk, we will get the required number of ounces of whole milk required for the 24 hours which is 34 ounces. If the child is 8 months old he should get 5 bottle of 8 ounces each, giving a total quantity of 40 ounces for the 24 hours. Hence our formula for this child will be written:

Whole milk, 34 ounces.
Boiled water, 6 ounces.
Milk sugar, 1 ounce.
Calories, 800.

Proteid Requirements—Caloric feeding may have all the factors properly proportioned and in sufficient quantity, but this is not necessarily true, and here I wish to emphasize one important fact in all infant feeding—that as well as having a sufficient caloric value to our food mixture there is one thing imperative to the proper growth and development of the baby and that is a sufficient quantity of proteid to meet the needs of the growth and development of the tissues as well as the minimum to balance the katabolic processes. The average proteid need of a baby is at least 1.5 grammes per kilogram of body weight or .7 gramme per pound of body weight. Though there are unquestionably not a few babies who require as much as .9 gramme per pound of body weight in 24 hours. We know that the majority of the babies we feed get more protein than this minimal requirement and the excess does not seem to do any harm. However, if this minimal requirement is not given the child will not thrive but if the proteid content is kept below .7 gramme per pound in the feeding for an indefinite length of time the child will eventually die of malnutrition, no matter how high the caloric value of the food may be. Fats and sugars may replace each other, and proteids, to a limited extent, may replace the two of them, but neither fats nor sugar can replace the proteids of the food, that is, for the minimal proteids needs.

If we choose to give the baby a proteid content in the food just sufficient to cover the tissue waste, or that amount which is just sufficient for katabolism, the baby will live but may show signs of malnutrition and will not thrive properly. The other extreme may be obtained where we get a very fat and apparently a very healthy child, but such babies are not sound; the proper growth of the muscle tissue and bone structure will be found to be lacking. This baby is not infrequently well illustrated in the condensed milk baby or the proprietary food baby, in which foods the fat and proteid content are very low in comparison with the sugar content. When the proper dilution is made for the sugar content the proportion of proteid and fat is relatively very low. According to John Lovett Morse the protied needs are:

4 years	55 grammes	3.5 grammes
8 years	60 grammes	3.0 grammes
12 years	75 grammes	2.5 grammes

5 grammes less of proteid for girls, 5 grammes more for boys. Minimum proteid need 2-3 of above."

It has been proven by Allen (theoretically speaking) (Arch. Ped. 1907; xxiv, 899) that the nitrogen equilibrium of the child can be maintained by one ounce of milk to each pound of body weight and to meet the needs of growth and development 1 1-2 ounces of milk per pound of body weight in 24 hours should be given. This covers the nitrogen loss of tissue waste as well as supplies sufficient nitrogen for the growth and development of the body. Grulee says that his clinical observations correspond very closely to this theoretical calculation of Allen's.

TABLE OF FOOD VALUES.

Caloric Feeding

		Calories	Grammes F	C	P	
Whole Milk	1 Quart	670	38	43	34
Skim Milk	1 Quart	400	10	43	35
Gravity Cream	1 Pint	860	77	22	14
Buttermilk	1 Quart	360	5	43	35
Whey	1 Quart	260	5	43	9
Beet Juice	1 Ounce	10			2
Crackers	1 Ounce (1)	120	3	20	3
Bread	1 Slice (3)	75	0.5	15	3

Zwieback ..... 1 Slice (4)	120	3	20	3
Shredded Wheat Biscuit	105	0.5	22	3
Oatmeal and other Cereals (Cooked) ..... 1 Tablespoonful	25		5.5	1
Rice ..... (Cooked) 1 Tablespoonful	45		10	1
Potato ..... Size of Large Egg	100		20	2
Macaroni ..... (Cooked) 1 Tablespoonful	30	0.5	5	1
Egg ..... Whole	72	5		7
Yolk	60	5		4
White	12			3
Meat, Fish (Cooked ..... 1 Oune (2)	60	3		7
Butter ..... 1¼ inches cub, equal 1 Ounce	225	24		
Olive Oil ..... 1 Tablespoonful	125	14		
Sugar..Cane ..... 1 Rounded Tablespoonful	25		6	
....Milk ..... 1 Rounded Tablespoonful	60		15	
Green Peas (Cooked)..... 1 Tablespoonful	40		7	3
Carrots, Squash, Turnip (Cooked ..... 1 Tablespoonful	30		6	1
Orange....Medium Sized	50		13	
Apple.....Medium Sized	70		17	

1. Crackers vary so much in size that they must be weighed to determine how many it takes to weigh an ounce.

2. The lean of a lamb chop weighs about an ounce; so does a piece of meat 1¼ inches cube.

3. Bread—1 slice equals 4 inches square and three-eighths inch thick equals 1 ounce.

4. Zwieback—1 slice equals large slice.

Clear soups and broth made without rice r barley are practically no nutritive value.

The nutritive value of the "fodder" vegetables—such as spinach, string beans, asparagus, lettuce, tomatoes and cucumbers—is so slight that it may be disregarded.

PROPRIETARY FOODS

	Fats	Sol. Carb.	Starch	Protein	Water	Inorg. Salt	Cal. Val. Per oz.
Nestles Food	4.45	51.39	28.43	11.47	2.53	1.73	160
Mellins Food	0.24	80.		11.50	4.73	3.59	120
Eskays Food	1.16	67.81	21.21	5.82	2.70	1.30	128
Malted Milk	8.78	67.95		16.35	3.06	3.86	135
(Horlick's)							
Imperial Granum	1.04	1.80	76.21	14.	9.23	0.39	120
Ridge's Food	1.11	1.80	76.21	11.81	8.58	0.49	120
Condensed Milk	11.	57.		12.	20.	2.25	85

SPECIALLY PRPARED MILKS

Unsweetened Condensed Milk	9.12	14.		10.	65.	2.	58
Eiweiss Milk from whole milk	2.25	1.5		3.			13
Eiweiss Milk from fat free milk	1.	1.5		2.75			
Buttermilk	1.25	3.38		3.78	90.62	.65	10
Whey	.96	5.49		.94	92.13	.48	56

In feeding infants we have certain definite facts and limitations to keep before us. The food elements are limited to four ingredients, viz.: Fats, Carbohydrates, Proteids, and Salts, and every baby must have these articles in its food and no others.

To thrive, every baby must get a sufficient amount of food and this sufficient amount is determined by its value in calories and the baby's ability to digest same. As I have attempted to show above, babies at certain ages and under certain conditions require a certain number of calories per pound of body weight in 24 hours.

While I have attempted to go into some detail as to caloric needs of the different child, or infant, which, as I have shown, varies under certain circumstances, and have given the caloric values of the different foods, we would be led astray if we got the idea that our armamentarium was now complete and thought that feeding of infants was a matter of a few simple calculations. Unfortunately for the child, such is not the case, or the many difficulties in infant feeding would have long since been solved. To my mind, we have only attempted

to reach the stage of preparedness when we have these facts settled and at our fingers' tips. We must ever bear in mind that a food may contain a sufficient number of calories and a sufficient amount of proteid to meet all needs and at the same time be very unsuited for the baby, or it may suit one baby's digestion and be very unsuited for another baby of the same age. As Talbott & Morse have aptly put it, our task after mastering all the above details is getting the "food to fit" the digestive capacity of the individual infant.

A more practical solution, it seems to me, is to consider each infant an individual who has a choice of certain foods, and that while one food may be assimilated easily, other foods equally as valuable may be utterly useless and even harmful. Because two foods contain the same elements is no reason why they are equally good for any one child. Even we, as adults, have a choice whether we shall have our toast buttered with butter or with lard; both being fats and of equal calories is no reason why they should be interchangeable in our diet. This preference for some food elements and rejection of others is a very definite and important factor in infant feeding, and must not be ignored if success would crown our efforts.

Chapin says: "The successful feeder is the one who gets the infant to taking some suitable food and then adjusts the ingredients so that they are in sufficient quantity to carry on the normal chemical changes that take place in the body and allows storage of tissue other than fat, and at the same time produces proper functional development."

Howland says: "By clinical observation and not by physiological or chemical determination must the superiority or inferiority of a diet or a method of feeding eventually be established."

The main points I wish to stress in this paper are: First, that every infant is an individual to himself or herself wholly and the feeding of every child is an experiment to find out the "food to fit" and no child can be fed by any fixed rule or formula. Second, that the main value to be gained in the caloric method of infant feeding is that it serves merely as a check on our work. The calculation of the caloric value of the food will show us whether our failure to gain in weight is due to insufficient amount of food or to other causes than this. On the other hand, if the baby has a disturbance of digestion on a food which was thought to be all right, calculation of the caloric value of the food will show us whether the disturbance is due to overfeeding.

With this system as with many other methods there has been a tendency to over-emphasize the importance of "Caloric Feeding." I do not wish to underestimate or not sufficiently to emhpasize the value of caloric determination of the food of every infant. I think the food of every infant should have its caloric value determined and the number of calories per pound for 24 hours known. However, its main use lies in its value as a check on the physician to prevent under or over feeding. And, while caloric feeding is a good general guide we still have the most important point before us —that of getting "feedings to fit."

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EYE SYMPTOMS REFERABLE TO GENERAL DISEASES.*

By J. M. Lilly, M. D., Fayetteville, N. C.

The relationship which the organs of sight bear to the remainder of the human body, makes it very important that one, who attempts to treat the various abnormal conditions manifesting themselves in the eye, have a good working knowledge of the anatomy, physiology and pathology of the entire human economy.

To go into all the signs and symptoms manifesting themselves in the eye, but due wholly or in part to some constitu-

*Read before the Durham meeting of the North Carolina Medical Society.

tional disturbance, would require a volume rather than a short paper to be read in a few minutes, so I will have time to call attention to only a few of the most important of these with which the general practitioner and the oculist are constantly coming in contact.

The oculist should never examine eyes without keeping constantly in mind the fact that the symptoms he is besought to relieve may be due to a remote cause, and always search for that cause. On the other hand, the general practitioner should, as far as possible, acquaint himself with the various eye manifestations of constitutional diseases, and add to each physical examination, when the symptoms are at all obscure, an examination of the fundi of the eyes. By so doing he would frequently make an early diagnosis which would otherwise be overlooked until later, and thereby much valuable time might be saved in administering the proper treatment. It goes without saying that no one can be a competent oculist unless he be a competent physician; nor can a man attain the most in general practice unless he avail himself of the information to be gained by eye examinations, either by acquainting himself with the work or calling upon a competent oculist when the occasion may demand it.

In this brief discussion we will consider only:

Syphilis, Nephritis, Diabetes, Rheumatism, Brain Tumors, Tobacco and Alcohol Amblyopia, Locomotor Ataxia and Gonorrhea.

Syphilis.

The eye is one of the most frequent locations of the secondary and so-called tertiary manifestations of syphilis, and is more frequently involved in this disease than any other special sense organ. Chancre may occur on the eyelids or conjunctiva, but this is rare as these are not often the location of the initial infection. There is a very foolish custom among many machinists and railroad employes of removing cinders from each others eyes with the tongue, and cases of chancre in this location have been caused in this way. Any of the cutaneous manifestations of syphilis may occur on the eye lids. Gumma of the lids may first look much like a meibomian cyst, but sloughing and contraction take place later. The lachrymal apparatus, the choroid, the retina, each may suffer, but the cornea is more frequently involved than any other structure of the eye. It was pointed out by Hutchinson years ago that interstitial keratitis, with a certain degree of deafness, associated with peg-like incisor teeth are pathognomonic of inherited syphilis, while other authors claim that the interstitial keratitis may occur in the acquired form of the disease. Iritis is met with in every stage of syphilis, and while I do not think this is true in the smaller towns and country, I doubt not that the percentage is even higher in the crowded cities, where there is much more venerial disease. These cases are prone to relapse and both eyes are likely to be involved. Not infrequently large golden thickenings occur in the iris and are spoken of as gummata of the iris, though usually a secondary symptom. The ciliary bodies are usually secondarily involved, producing syphilitic iridocyclitis. The syphilitic changes occurring in the iris and ciliary bodies lead to the softening of the sclera and a bluish white ring around the cornea near the limbus. Chorioditis is too perhaps fifty per cent. due to syphilis, or even more. Syphilis may cause optic neuritis, opaque lenses and orbital periostitis.

Nephritis.

In this disease the oculist is often first to make a diagnosis because eye symptoms are frequently the first evidence of it, and he is consulted before the general practitioner is. The ophthalmoscopic picture is often definite enough to make a reasonably accurate diagnosis, which should always be substantiated by urinalysis and measuring blood pressure. Albuminuric retinitis is not always present in nephritic cases where the vision fails as a result of the disease, for there are many cases of visual disturbance due to the toxemia where the fundi are normal in appearance. The prognosis when albuminuric retinitis is present (except in cases of albuminuria of pregnancy) is exceedingly grave, most cases dying in from a few weeks to two years, but complete recovery does take place, as I myself have seen. The condition of hardened arteries and high blood pressure, which is present in almost all cases of chronic nephritis, also manifests itself in the ophthalmoscopic appearance of the blood vessels in the retina. For instance where thickened, hardened artery crosses a vein it causes a distinct obstruction to it, the veins appearing larger and fuller on the sides away from the disc. I have taken the blood-pressure in many cases in which the ophthalmoscopic examination suggested nephritis or arteriosclerosis, and have almost always found it high and occasionally above 300 systolic. Not in all of these cases, however, have I found albumin or casts, but I feel sure that there always exists in such cases a chronic interstitial nephritis.

Diabetes.

The opthalmoscopic picture in Diabetes is about the same as in nephritis, except for the fact that the exudate does not have the same symmetrical arrangement as is found in nephritis. Cataract is more common in this latter disease. In nephritis eye symptoms are often the first intimation of disease, while they are usually of late occurrence in diabetes.

Rheumatism.

Rheumatic involvement of the eyeball may occur in the course of a rheumatism, or may be the only symptom present. However, there is usually a rheumatic history. It is prone to recur. Episcleritis in which there are localized patches of scleral injection or oedema with a violaceous tint often occur, lasting a week or two or longer, and recurring at intervals of some weeks or months.

Iritis relapses and recurs and may attack one or both eyes, more frequently both but at different times.

Glaucomatous eyes are prone to exaggerations of symptoms if rheumatic iritis exists. Cataracts and vitreous opacities may result from this condition. Clinicians of wide experience estimate that one-fourth of uveitis and optic neuritis are due to rheumatism.

Brain Tumor.

One of the most reliable signs of brain tumor is the peculiar ophthalmoscopic picture known as choked disc. It should be borne in mind that there may be a neuro-retinitis from other causes, and on the other hand that all cases of brain tumor do not cause eye symptoms. The differentiation between choked disc and neuro-retinitis is in many instances an arbitrary one.

Von Grafe was first to call attention to the so-called choked disc. The various paralyses of the eye muscles help in cerebral localization when a brain lesion is present.

Tobacco and Alcohol Poisoning.

This condition is not infrequent. The symptom most marked is Amblyopia or amaurosis and a dry congestion of the eyes known as "Smoker's Red Eyes." The field of vision is first centrally involved, whereas, in optic atrophy it suffers first in the periphery.

Locomotor Ataxia.

In this disease we have the so-called Afgyll Robertson Pupil in which the iris responds to accommodation and convergence but not to light. This often precedes other symptoms of locomotor by ataxia several years.

Gonorrhea.

This disease attacks the eyes in two distinct ways: (1) Local infection with pus which manifests itself in a violent purulent conjunctivitis, the cornea often ulcerating and breaking down and a general panophthalmitis following. (2) Due to the constitutional condition that causes the joint symptoms of gonorrhea or the so-called gonorrheal rheumatism, and is much like rheumatic iritis.

NEWER METHODS OF DIAGNOSIS IN PEDIATRICS.*

By Aldert Smedes Root, M. D., Raleigh, N. C.

Some notable and interesting advances in the diagnosis of Diseases of Children have been made in the past few years, and from a review of the literature bearing upon the subject, together with observations, which I have recently had occasion to make in some of our most scientific Pediatric Institutions, I shall present in a brief way those means which seem to me to be the most useful and practical. There are: The use of the X-ray, especially in studying Intra-Thoracic Lesions, the Schick Reaction, and the Anaphylactic skin reactions in diagnosing food poison.

In addition, two physical signs indicative of pathological states, namely, D'Espine's and Mac Ewen's Signs respectively have engaged the attention of Pediatrists.

The X-Ray: While the value of the X-ray in diagnosticating fractures, dislocations, diseases of the bones and joints, rickets and chondroplasia has been for years generally recognized,—Roentgenology as applied to intra-thoracic lesions, has but recently become a routine measure in all of our modern hospitals. With this larger use of the X-ray, the results have been gratifying in proportion, and by its use many positive, or early diagnoses, which otherwise could not have been made, are possible. In our smaller institutions, only a restricted number of patients can afford the expense of a skiagram,—but the time is rapidly approaching when even these will have an equipment for making satisfactory exposures. I might refer as an example, to the hospital in my own town, where recently a handsome outfit has been donated upon the expressed condition that all city charity cases entering the institution, shall have made whenever indicated, an X-ray plate free of any charge whatsoever. The morbid conditions revealed in these skiagrams are lobar pneumonia, tubercular broncho pneumonia, sometimes miliary tubercu-

*Read before the North Carolina Medical Society, Durham, N. C., April 19, 1916.

losis, empyema, hydro or pneumo, thorax, enlarged mediastinal glands, various heart abnormalities, and enlarged thymus. In lobar pneumonia the shadow is seen before the physical signs of consolidation can be detected. Weill and Mourequand, in 350 skiagraphed cases, show the shadow triangular in shape in the earliest stage, with the base at the perifery and apex at the root of the lung. This corresponds with the observations of Mason and other writers.

In cases of tubercular broncho-pneumonia in the latter stages, not unfrequently has there been found at autopsy a cavity at one or the other apex which was not recognized in life because amphoric was confused with puerile breathing. Here the X-ray discloses the lesion and the extent to which inroads have been made.

In miliary tuberculosis, while there is a general failure of health and probably hacking cough, the only physical sign usually encountered is the occurance of scattered rales usually in the nipple region. A positive diagnosis in these cases can frequently be made by the X-ray casting small spotted shadows on the screen, aptly described as "measles on the lungs." While a positive Von Pirquet would be very significant in such a case, the positive diagnosis can only be made by the X-ray.

In case of Empyema, not only can the condition by the aid of physical signs be diagnosed, but its extent and localization.

In Cardiac conditions, roentgenology is again of great value. It helps, in conjunction with the pulse and temperature, to determine the damage done to the heart by the size and shape of the shadow. Often one has to differentiate between an organic and a haemic murmur. Here the X-ray helps us out of the difficulty again. In distinguishing between a pericardeal effusion and cardiac enlargement, the X-ray is of the greatest value.

In as much as this means of diagnosis is particularly well adapted to children, any obscure intra-thoracic condition should be investigated through its use wherever possible.

The Schick Reaction: While the Schick Reaction does not diagnosticate a morbid entity, yet it does determine a susceptibility to such a state, and hence I think may properly be included in this discussion. The administration of diphtheria antitoxine in immunizing doses to individuals exposed to the disease as a prophylactic measure, is no longer modern medicine. The Schick Reaction places in the hands of the general practitioner a ready and practical method for determining one's susceptibility to Kleb-Loeffler infection.

It has been only a few years since diphtheria was regarded as one of the highly contagious diseases. Now we know through the agency of the Schick Test, that 93 per cent. of the newborn, 57 per cent. of children under one year of age, 37 per cent. of those between one and five years, 50 per cent of those between five and fifteen years old, and 90 per cent. of all adults possess a natural immunity against diphtheria.

While this is fortunately true, it is quite necessary to guard those exposed against the disease. The administration of diphtheria antitoxine as a prophylactic has served this purpose, yet its use has been fraught with no inconsiderable inconvenience and even with danger. The urticaria and myositis experienced ordinarily when antitoxin is administered is at best, far from pleasant. The expense is a factor to be considered, especially in a large family. Furthermore, serious and even fatal anaphylactic reactions have been known to occur, when a second dose was administered at some later exposure or illness. By the simple application of the Schick Reaction, the positive cases or those susceptible are discovered and to these antitoxine or preferably toxine-antitoxine, as Park recommends, should be administered. The latter produces both an active and positive immunity.

The Schick Test is placed upon the market at a very reasonable cost by the National Vaccine and Antitoxine Institute, Mulford Company, Park-Davis Company and other similar concerns.

The principal of the reaction is, that in each individual there is naturally a certain amount of diphtheria antitoxine. When a minute amount of diphtheria toxine (.2 c. c. of normal salt solution containing 1-50 of a minimum lethal dose for a guinea pig) is injected into the skin, —if there is sufficient amount of the natural antitoxine in the blood to protect the individual, the toxine is neutralized and there is no reaction. If there is not a sufficient amount, then the toxine injected is not neutralized and there is a local reaction to the poison, manifested by the appearance within twenty-four hours of a circumscribed area of redress and slight infiltration which measures usually about 1-2 to 1 inch in diameter. The height of the local reaction is seen at the end of seventy-two hours. It persists for seven to ten days and on fading shows superficial scaling and pigmentation.

For carrying out the test it is neces-

sary to have an accurately graduated hypodermic syringe—preferably a Record syringe—and a small needle. The toxine is injected intradermally, care being exercised not to penetrate the true skin. The appearance of the skin after injection is that of a small blister and it is best placed upon the flexor surface of the forearm. The value of the test is undisputed.

Of 800 patients showing a negative Schick in the Willard-Parker Hospital for contagious diseases in New York City,—who had been exposed to active diphtheria, not one contracted the disease. In many of our modern institutions for children's diseases the Schick Test is carried out as a routine measure. In my own practice I have found its use most valuable and helpful and far less troublesome than the administration of the antitoxine.

Anaphylactic Food Reaction for Ascertaining Food Poison: By Anaphylaxis is meant the hypersensitiveness of an individual to a specific foreign proteid. This sensitivity is often manifested in children by the "exudative diathesis," the symptoms of which are skin eruptions, usually a form of eczema, a strong tendency towards asthma and an eosinophylia. In any child presenting this combination of symptoms there is a strong probability that he or she is suffering from a specific foreign proteid poison. Just what food contains this offending proteid, whether fish, egg, milk or what-not, is a matter of conjecture on our part. If, however, the specific proteid food causing the trouble were injected into the skin, or the skin innoculated with it, there would be a local reaction because of the child's sensitivity to it. This phenomenon of anaphylaxis enables us, therefore, to determine often the specific food which is poison to the child, and gives us a scientific basis upon which to regulate the diet. A few months ago in the childrens' ward at Bellevue Hospital, New York, some of the pediatrists were using raw products containing proteid food—beef, pork, the white of egg, milk, etc. for making the tests. Scarifications are made upon the arm by a Von Pirquet scarifier and the foods rubbed in. A positive reaction is manifested by the appearances of an urticarial wheal, within a few minutes. Strickler and Goldberg in the January 22nd number of the Journal A. M. A., describe methods of preparing various proteid foods for hypodermic injection into the skin. The local anaphylactic reaction by this method is expressed in a papule with some induration which persists for at least forty-eight hours. In the twenty-nine cases, all having the exudative diathesis, reported upon by these gentlemen, two were sensative to milk, two to tomatoes, one to pork, two to fish and crab, one to crab alone, one to cow casein and beef, one to cow casein alone, while a number of the other reactions were suggestive.

Upon the withdrawal of the offending article of diet, a number of these cases cleared up in a remarkably short time.

This new field of work, now in its infancy, offers splendid possibilities and there will no doubt be placed upon the market food preparations in a convenient form to be given in every day practice.

Physical Signs: The two physical signs to which I referred at the beginning of my paper are, D'Espines Sign, for detecting certain diseases at the root of the lung, and MacEwen's Sign elicited where there is increased intracranial tension, as in meningitis.

D'Espine's Sign: Coley in 1846 pointed out that a "tuberculous process in children usually commences in the bronchial glands and remains often unnoticed, especially when unattended by a cough for a considerable length of time and that the suppuration or softening of tubercles in the bronchial glands very rarely occurs without corresponding disease appearing in the lungs." Nevertheless, until D'Espine described a sign in recent years which he had frequently noticed in case of enlarged bronchial glands, was it thought possible, by physical signs to detect them, on account of their lying so deeply within the thorax.

He stated that in young children the whispered or softly spoken voice normally ceased at the level of the 7th cervical spine posterially. In case of enlarged glands about the root of the lung it is heard over the upper thoracic spines as well. The enlarged glands may be due to tuberculosis malignancy, leukemia, syphilis or Hodgkins disease, or to a simple adenitis.

The sign is best elicited with the patient in the sitting posture, the head flexed and arms folded. The patient is made to say "three-thirty three" while firm pressure is made with the stethascope over the area examined. When positive the final "e" persists for a moment as an echo. "This post phonal quality is the significant feature." A good deal of discussion about, and difference of opinion in, the value of the sign has taken place, but it is certainly fair to say that much evidence has appeared in it's favor. Among it's advocates are Smith and Sweet who reported in the American

Journal of Diseases of Children seventy cases with positive D'Espine's, ninety-three per cent. of whom showed positive X-ray findings at the hilum.

MacEwen's Sign: MacEwen pointed out that in certain conditions, where the cerebro-spinal fluid was increased, if the stethascope were placed on the forehead, just above the base of the nose and the skull tapped with the percussion finger over the parietal region,—a high-pitched, sharp, short crack-pot note was heard. Beginning just over the parietal boss, the percussion finger is made to approach the stethascope and as it does so the note diminishes in intensity and character. This latter is important in differentiating between a false and true MacEwen—the opposite holding true in case of the normal skull i. e. the note is louder nearer the stethascope.

As in D'Espine's sign some difference of opinion exists as to the value—but this may be due, as Wilcox points out, to the fact that no definite standard has been set for the normal skull at different ages and those having different conditions of sutures and sizes of the fontanelles.

MacEwen, himself, stated that a "skull may be so thin or so thick that it cannot vibrate at all." In congenital hydrocephalus for instance, where the walls of the cranium are thin plates and sutures completely open, nothing save a dull note is obtained.

Hessman and Feldstein contend that MacEwen's sign is of no significance before the closure of the fontanelles,—but that the crack-pot note occurs after the closure.

Wilcox in the Archives of Pediatrics, reports upon a positive MacEwen in 50 or 53 cases of tubercular meningitis, with one case doubtful. Six were under one year of age, 29 between one and two years, and 16 over two years. "In all of these" he says the sign appeared before or at the same time as the development of other symptoms.

Eighteen cases of acute meningitis of various types other than tubercular were observed, among which there was only one in which MacEwen was lacking.

Five cases of poliomyelitis all gave a positive MacEwen sign, with reduction in intensity after removal of verebro spinal fluid.

Two children were admitted for chronic otitis media with marked symptoms of meningeal irritation. Their spinal fluids showed increased volumn and pressure. The MacEwen sign was strongly positive at first and persisted so long as cerebral signs continued ——— Because of the more or less marked cerebral symptoms, the MacEwen test was applied to 13 cases of pneumonia. In 5 of these lumbar puncture was considered justifiable and an increase of normal spinal fluid under pressure was demonstrated in all five ——— The sign was positive in eleven cases, questionable in one and negative in one."

A Few State Board Examination Questions of Arkansas.

Bacteriology

1. (a) Give method of blood staining. (b) What is the normal blood count, and how is it affected by disease?

2. (a) What is the value of Widal's test for typhoid fever? (b) At what stage of the fever is it most reliable?

3. What general conditions predispose to bacterial infections?

4. (a) Give general method of procedure for staining bacteria. (b) What are counterstains?

5. (a) What is the most effective method of sterilization? (b) How are culture mediums sterilized?

6. (a) Describe in detail the process of finding tubercle bacilli in the urine. (b) Give method of determining the location of the infection. (c) From what other bacilli would you have to differentiate them?

7. Name some of the disease of which the pneumococci may be the chief etiologic factor.

8. What culture-medium is essential in the growth of the organisms producing the following diseases: Cerebrospinal meningitis, gonnorrhea, and diphtheria?

9. Mention five general or systemic diseases produced by microorganisms, and in connection with each give name and chief morphologic characteristic of organisms concerned.

10. What is the cause of difference in the virulence of diphtheria?

Practice.

1. Name four types of malarial infection, and give treatment of remittent fever.

2. Give the etiology and treatment of acute tonsillitis.

3. Give the treatment for habitual constipation.

4. Differentiate between pleurisy with effusion and acute lobar pneumonia, giving treatment of the latter.

5. Give the treatment of facial erysipelas.

6. How would you make an early diagnosis of tuberculosis?

7. Give the treatment of ophthalmia neonatorum.

8. Give the treatment of convulsions caused by nephritis.

9. Give the medical treatment of ulcer of the stomach.

10. Give the symptoms and treatment of pellagra.

Obstetrics.

1. Into what stages is labor divided, and where do these stages begin and end?

2. Give diagnosis and management of a breech presentation. What are the dangers?

3. Give indications for the use of forceps, internal podalic version, and cesarean section.

4. What are the causes of hyperemesis gravidarum, and the clinical features and the treatment of the condition?

5. What is placenta praevia? Name its causes, varieties, symptoms, dangers, and treatment.

6. Eclampsia: etiology, premonitory symptoms, and treatment?

7. Describe the delivery of the placenta after the method of Crede.

8. Give two indications for the induction of premature labor, and describe one method of performing it.

9. What are the symptoms of inevitable abortion, and how should a case be managed?

Gynecology.

1. (a) Name two causes of sterility in the male. (b) Name three of sterility in the female.

2. Name the objective signs of extra-uterine pregnancy.

3. Name two most common causes of dysmenorrhea.

4. What symptoms of cystitis are first noted.

5. Name the indications for the use of uterine tampons following abortion.

6. Name three varieties of fibroids of the uterus.

7. Name three etiologic factors in acute endometritis.

8. Give treatment for inoperable carcinoma of cervix.

9. Would you remove in toto an ovary with a small cyst?

10. What are the objections to ventral fixation of uterus?

Surgery.

1. Define inflammation, septicemia, and pyemia. What organs are most prone to pyemia?

2. What general term denotes control of hemorrhage? State all the methods which may be used to stop the flow of blood from a wound.

3. What would be the proper treatment for backward dislocations of the femur at knee, with rupture of the popliteal artery?

4. Give causes, symptoms, diagnosis, and treatment for acute suppurative osteomyelitis.

5. Define shock, and state how you would treat same.

6. If called to a patient with a compound fracture of leg in lower third which had been produced by kick of horse in a barnyard, state in detail how you would treat such case.

7. Define ankylosis; give varieties; also describe a surgical method for restoration of joint function in case of bony ankylosis of the knee joint.

8. Give points of differential diagnosis between pyloric (or duodenal ulcer) and cholecystitis.

9. Give varieties of ileus, and state some of the causes of each.

10. Give symptoms, diagnosis, and treatment of stone in ureter.

Hygiene.

1. Name four points in personal hygiene to prevent acquiring or imparting tuberculosis.

2. Name some special precautions a child should observe at school in order to avoid contracting disease.

3. What is the hygiene of pregnancy, and what advice would you give a pregnant woman from a hygienic standpoint?

4. Give prophylaxis of filth diseases.

5. What are the dangers from (a) the house fly? (b) The mosquito? (c) How would you exterminate them from a community?

6. (a) Name the chief sources of contamination of drinking water. (b) Give several methods of purifying drinking water.

7. Name some diseases that are communicated to man through cow's milk.

8. (a) Name all diseases due to microorganisms. (b) Methods of transmission.

9. What hygienic precautions should be employed around a patient with scarlet fever and diphtheria?

10. What necessary precautions should be taken to insure healthy sleep?

Prepare Now or Eight Later.

This is the title of the attractive advertisement of The Abbott Laboratories on page iii of this issue. The plan of constructing advertising around timely topics is a good one; it has attracted considerable attention to the Abbott announcements. The products advertised justify all the claims made for them. We understand that the sales have been wonderful during the past year.

Liberal samples sent on request.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE, N. C.

ARE WE READY TO PLACE THE PRACTICE OF PREVENTIVE MEDICINE ON THE FINDINGS OF THE MICROSCOPE?

Some time since there occurred an outbreak of diptheria in a New York city hospital, there being in all nine cases. Investigation appeared to show that the outbreak was due to the presence in the institution of a diptheria bacillus carrier. A young physician on the house staff admitted that his throat secretions had frequently showed the presence of the diptheria bacilli.

Without resigning he left the hospital for a visit to his home in another State, and later on returning was "denied reinstatement to his position on account of being a possible bacillus carrier," and the State Board of Health of his home State advised of the above facts in the premises with a view it "take such steps as seemed advisable in such cases."

What steps?

When it is borne in mind that wholesale examinations of the buccal and pharyngeal secretions of school children in large city schools exhibit constantly from one and a half to five per cent. of the attending pupils as diptheria bacillus carriers in daily class room exercises and that these same children's throats also show in varying numbers, pneumonic and other infectious organisms, it may well be questioned, what steps shall be taken to absolutely eliminate the possibility of diptheritic infection in school children, and likewise infections in cases similar to the young physician mentioned above.

If the profession is to give its sanction to putting into actual practice pronounced preventive measures based on eliminating attendants who are possible carriers of disease germs, where shall the work begin, and where shall it end?

Will it become the fashion to have everybody (including the doctors) submit various secretions for daily examination, and be "certified" prior to engaging in their various labors?

Would not immediately on the institution of such regime a not inconsiderable number of our brightest and most highly qualified medical and surgical men become disqualified to continue to practice medicine?

Pray at what stage of his great life work would the great Edward L. Trudeau have been retired?

Would it not be well for all public sanitary endeavor to be content to walk just slightly in the rear of the advance guard of the purely scientific technical study of pathology at all times, and not be too overly zealous in parading infant theoretical progeny with yet the vernix caseosa adhering to their integuments as full grown lusty adults with established vigor? The general practitioner of medicine must continue to be the man whose careful sense of the proportions is maintained, and who does not permit himself to be obsessed with the desire to prance, without intelligent and deliberate study, to the front of every newborn propositio nbecause it may appeal to some of us as "quite up to date medicine," for after all are we not much of the time, like the squirrel in the cage, going around and around.

W.

MEDICAL MEN OF THE NORTH CAROLINA NATIONAL GUARD.

While there may have been times when legislature bodies, and in part the general public, may not have accorded their most active support to the efforts made in North Carolina to promote the efficiency of the State troops, it can be truthfully said of the members of the medical profession, they have seen their duty as patriotic citizens and loyally given at all times their most cordial support to every move making for the advancement of the North Carolina National Guard.

In years gone by that splendid prince of good fellows and capable medics, the lamented Dr. Robert S. Young of Concord, N. C., as Surgeon General of the State troops had around him a corps of the choicest spirits the State's profession afforded. Later under Dr. John Hey Williams of Asheville, and equally so when the inimitable Dr. Samuel Westray Battle also of Asheville, occupied the position of head of the State's military medical staff, it was the pleasure of a number of our best young men to accept commissions in the service, and loyally lend their best endeavors to bringing this vital arm of governmental machinery to a state of high attainment.

In the recent retirement of Dr. Eugene B. Glenn, Asheville, N. C., as ranking medical officer of the State troops, a valued and experienced officer was lost to the service, though it is a gratification to know his place was promptly filled by a capable successor.

Whether the North Carolina troops, now at Camp Glenn, at Morehead City, N. C., and shortly to be stationed near El

Paso, Texas, on the Mexican border, ever experience the advantages and opportunities of more serious service on the other side of the Rio Grande or not, it is a source of much satisfaction to both profession and populace to know that the North Carolina Brigade recently mustered into the service of the United States is medically officered by high grade physicians and surgeons, a number of whom in accepting service with the Federal troops have done so at serious loss in a financial way. But never a word of regret is heard over this, and all seem animated by high and noble purpose to serve the nation as best they may and to contribute their full share to maintaining efficiency in the army medical work.

The following is the complete list of the medical staff as recently mustered into the army

Major and Chief Surgeon—Dr. Baxter R. Hunter, Charlotte, N. C.

Major—Dr. Henry I. Clark, Scotland Neck, N. C.

Major—Dr. J. Vance McGougan, Fayetteville, N. C.

Major—Dr. A. R. Winston, Franklinton, N. C.

Major—Francis J. Clemenger, Asheville, N. C.

Captain—Dr. Henry Norris, Rutherfordton, N. C.

Captain—Dr. R. A. Campbell, Statesville, N. C.

Captain—Dr. Armistead K. Tayloe, Washington, N. C.

Captain—Dr. M. B. Abernethy, Reidsville, N. C.

Captain—Dr. H. A. Newell, Louisburg, N. C.

Captain—Dr. J. W. Tankersley, Greensboro, N. C.

Captain—Dr. W. C. Horton, Raleigh, N. C.

Captain—Dr. Thomas F. Reynolds, Canton, N. C.

First Lieutenant—Dr. Francis M. Davis, Canton, N. C.

First Lieutenant—Dr. John H. Mease, Canton, N. C.

First Lieutenant—Dr. R. H. Spicer, Goldsboro, N. C.

First Lieutenant—Dr. W. B. Hunter, Wilmington, N. C.

First Lieutenant—Dr. J. W. MacConnell, Davidson, N. C.

First Lieutenant—Dr. Ben. W. Merriwether, Asheville, N. C.

First Lieutenant—Dr. T. B. Burress, Fairview, N. C.

First Lieutenant—Dr. John E. Ray, Raleigh, N. C.

First Lieutenant—Dr. Raymond Pollock, New Berne, N. C.

J. H. W.

BEDSIDE INSTRUCTION TO UNDERGRADUATES DURING SUMMER VACATION.

After completion of the second year of a four years' medical course, the student is well prepared to begin his bedside observations, if these are available in a satisfactory form.

In order to be profitable, this work must be systematically arranged and carefully supervised and it must occupy all of the student's time that he does not utilize in reading and in proper recreation.

Practically all medical colleges have a four months summer vacation which can be utilized to marked advantage by medical students in obtaining most valuable bedside instruction.

A number of hospitals have adopted the following plan, which should be adopted by all the well-equipped hospitals in the country, and which would not only greatly improve the service of the resident staff in the individual hospitals, but would make it possible for all students in the various medical colleges to obtain instruction equal at least in value, to one regular semester for each summer of bedside work done.

The service is arranged as follows: Only students who have completed at least two full years of college work are admitted. One student is assigned to each interne, under whose personal supervision all of his work is done.

The student reports to the interne who is his superior, half an hour before the regular routine work begins. He is under the direct orders of the interne and assists in all of the work done during the day. When the interne writes histories, he obtains the information from the patient and dictates it to the student, who records it upon the history blank. During operations the student is present and the interne assigns any duties to him which he may be able to perform. In laboratory examinations the student again assists his superior.

In case he desires information or explanation of anything concerned with the work this is given by the interne. In case of autopsies, the student is present. Thus the student comes in actual contact with clinical cases treated by a competent clinician.

The chief of the service under whom the interne, and with him the student, serves, his conferences at regular times at which the work is discussed and at

which a subject is assigned to each student to work out during the period of his service. At the various conferences, which should take place at least once each week, the progress of the student's paper is discussed.

The advantages of such work must be clear to every medical man. The student comes in actual contact with patients under the care of competent physicians and surgeons, from the time they are admitted to the hospital to the time they are discharged. He is present when the diagnosis is made, when the operation is performed or the treatment administered, when the subsequent treatment is carried out, and when the pathological material, the blood, the excreta, etc., are examined. He learns how to approach patients and becomes familiar with hospital discipline. When he returns to his regular work in medical school, he applies the teaching of his instructors to the individual observations he has made at the hospital.

It has been the general opinion of those students who have taken this course that they have profited at least twice as much from the subsequent college year as they would have, had they not taken this bedside work during summer vacation.

ALBERT J. OCHSNER.

EMERGENCY SURGERY OF THE GALL-BLADDER.

Not many years ago, most acute pathological conditions of the gall-bladder were generally looked upon as requiring emergency operations. The patients were hurried to the hospital and operated immediately because it seemed imperative to secure relief in the shortest possible time in order that the patient's life might be saved. To-day, perforation is the only one of all the acute pathological conditions of the gall-bladder requiring emergency operation.

Two elements have found their way into the philosophy underlying the practice in gall-bladder surgery which account for this important change. First. The fact that the margin of safety to the patient following operation is greatly reduced by the presence of a severe acute condition at the time of the operation, has been recognized and accepted by most surgeons. This being the case, the indication for an immediate operation can exist only in case there is danger to the life of the patient if the operation is postponed until the acute condition has subsided. Experience has shown that this is true only in case of perforation of the gall-bladder. Another indication for operation might exist in case it were necessary to operate in order to relieve excruciating pain, even though an emergency operation might increase the danger to the patient to some extent. During the early years of gall-bladder surgery, it frequently seemed proped to operate during an acute attack of gall-stone colic, when the pain would not yield to the use of morphia administered hypodermically. It was however, possible to demonstrate that these colics were due to muscular contractions of the gall-bladder walls or the bile ducts and that these were enitiated by the passage of stamach contents past the papilla in the duodenum, and that this could be readily prevented by completely emptying the stomach by means of gastric lavage, preferably with water at 110 degrees F., because the very warm water had the double advantage of dissolving the mucus in the stomach and causing the muscles in the gall-bladder and ducts to relax. Very commonly gall-stone colics which will not subside from the use of large doses of morphine will subside immediately upon applying gastric lavage in this manner, and the colic does not return unless food or water is taken by mouth.

With the absence of these induced spasms, the oedema of the mucous membrane in the vicinity of the gall-stone subsides and the latter becomes free and the patient can undergo the operation under vastly more favorable conditions.

The same is true with a gall-stone obstruction of the common duct.

In case a gall-stone is impacted in the cystic duct, it may not be released when the oedema subsides and a permanent obstruction may result, but the acute condition will subside and the fluid in the gall-bladder will become less septic or it may become entirely sterils, making the operation again much less dangerous.

The same is true with gangrene of the mucous lining of the gall-bladder without perforation. In the early days of gall-bladder surgery, Professor Rydigier pointed out the contracted, shrunken gall-bladder which tightly grasps one or more gall-stones. A microscopic examination of the gall-bladder wall in these cases shows that during acute attack in the distant past these cases suffered from a destruction of the mucous lining of the gall-bladder and that the condition found at the time of operation is due to this destruction. A careful study of the previous clinical history invariably confirms this theory.

It only remains then for the surgeon to diagnose the presence of a perforated gall bladder in order to do an emergency operation in proper cases.

At the onset it may be well to state that in case of doubt it is proper to operate, because, if any one of the other conditions is present which gives rise to symptoms upon which a diagnosis of perforation of the gall-bladder may be based, no harm will be done by the operation.

These conditions are, 1. Impaction of gall-stone in some one of the bile passages; 2. Gangrene of the gall-bladder; 3. Perforated duodenal ulcer; 4. Perforation of ulcer of the pylorus, and 5. Acute haemorrhagic pancreatitis, and very rarely, thrombosis of the superior mesenteric artery.

All of these conditions, except the last, give a previous history, (a) of digestive disturbances; (b) of pain in the region of the gall-bladder; (c) of pain referred to the back; (d) of a very acute attack with excruciating pain; (e) of marked shock; (f) of severe rigidity of the upper portion of the right rectus abdominis muscle; (g) of nausea and vomiting, and (h) of increasing leucocytosis.

There is scarcely any reason for differentiation; at any rate, no time should ever be wasted in doing this because no benefit can come from this to the patient, although the surgeon's personal vanity or conceit may be gratified, or a pretense of ultrascientific tendencies may be stimulated by going into thefiner elements of differentiation, but it can bring no profit to the patient, while it may measurably decrease his margin of safety.

In the presence of the symptoms mentioned above then, we have a clear indication for an emergency operation in which the saying of John B. Murphy, the great clinical teacher, finds a most appropriate application, "Get in quickly and get out quicker." In other words, do not reduce the margin of safety by unnecessary manipulations.

ALBERT J. OCHSNER.

ACUTE ANTERIOR POLIOMELITIS.

The epidemic of acute anterior polimyelitis in New York City and the territory of adjacent states, and in minor degree in several more distant states, continues at the end of August with about the same degree of intensity and fatality as when ushered in more than two months since.

The manifest disposition of both public and profession to unduly exagerate the importance of pathological conditions that are only present at occasional intervals in the community has been much in evidence during the past few weeks.

In May, June and July, there were reported to the health department of New York City, in round numbers, 10,000 cases of measles, and a little in excess of a third of that number of cases of poliomyelitis anterior were noted in the same period; nearly five thousand new cases of pulmonary tuberculosis, more than four thousand of diptheria, while pertussis showed a record of 3,301, and scarlatina more than half as many.

These latter affections were probably, by the press and public at large, scarcely noticed in the presence of the more novel pathologic entity, and yet medical men know the immediate deaths, coupled with the remoter pathogenetic influence attending the ten thousand cases of measles, fully equalled the more widely heralded morbific potency of poliomyelitis anterior; while the effects, near and remote on the community, of the cases of tuberculosis reported during the same time—but farther comment on this line is superfluous, the balanced thinkers who read these lines will understand and appreciate the argument and have already anticipated it.

Like the far too frequent homicides noted in so many sections of our fair South, the community in a measure, have grown accustomed to hearing of these things, and to an extent accept their existence as an almost unavoidable necessity, ceasing to be shocked, and merely noting the occurrence as the chance or passing incident of the day; but with the advent of more than the ordinary number of cases of infantile paralysis, and the daily chronicling in the columns of an alert press of the addresses of each new patient, it is easy to understand the intensity of interest and the degree of grave concern enveloping our nation's chief city during the past weeks and extending into many other sections.

On the call of Surgeon General Rupert Blue of the United State Public Health Service, there was held in Washington, D. C., early in August a conference of State Boards of Health which was well attended, prolific of both discussion and resolution, and recitings of the proper course for state and local health authorities to pursue in the premises, yet it may be truthfully stated, that the net results of the conference were not productive of any one idea particularly helpful to those battling with the disease. As a matter of fact, we are in ignorance of the exact cause, or causes, producing acute anterior poliomyelitis, or the nature of its methodus medendi, and it logically ensues that until we are in possession of such knowledge, both physicians and health officers must needs continue sadly

hampered and handicapped, even to the point of actual inefficiency, in properly treating as well as in the prophylaxis of the disease.

While it is customary to assume infantile paralysis, etiologically speaking, belongs in the list of communicable infectious disorders, it is significant that the present, and former epidemics alike, have shown a tendency to appear sporadically, and not to restrict its wealthy resident districts of New York ravages to those sections of the city supto peculiarly prolific in disease engendering environs. In large majority, single cases have appeared in households, and it has affected young persons in the apparently as readily as it has attacked the denizens of more squallid places.

It is peculiarly fortunate for both profession and people that so much professional attention has been focussed on the disease at this time, and we may all hope the end results of the thousands of cases, and the scientific study given infantile paralysis by the many students of the affection from all possible view points with appliance and opportunity never quite so complete before, will afford us in the end a definite positive knowledge both of the cause and method of conveyance of infection.

Meanwhile, the average physician must content himself with assuaging the morbid fears of his clientels, with the suggestion that there are many other malign influences possibly besetting the average infantile life to a far more serious degree, and to embrace the opportunity to urge more general consideration of health law and practice, for if thoroughly honest with himself, the doctor must admit our knowledge of the cause of the disease is limited, and equally so that the net experiences of the New York City health authorities to the end of August, do not appear to have materially lessened the incidence of the disease in that great and masterful municipality.

Nevertheless all attempts to circumscribe the activities of the disease should meet with the hearty sympathy and active co-operation of every practitioner and every suspected case should be isolated, watched carefully, reported promptly to the health officers, and restrictive measures thrown about the freedom of movement of those intimately associated with patients. Certainly self-respecting physicians may do no less than offer their most herdial co-operation with health authorities everywhere in their efforts, whether based an actual demonstrated knowledge, or variable conjectures, to a suppress farther spread of the disease. Within a few years it is more than likely we will view the strenuous quarantines of municipalities, and states recently ordered in some quarters as simply fanciful movements reflective of local fear and representing a desire to do something.

J. H. W.

THE GREENVILLE, S. C. CITY HOSPITAL CRITICISED.

An interesting situation has arisen in Greenville, S. C., relative to the management of the local city hospital which has a staff composed of thirty-one local physicians and surgeons resident in the city. It appears that a local newspaper had printed some strictures in regard to the management of the city hospital alleging the institution was being "run in the interest of a medical clique," and that "patients of limited means were discriminated against." At a recent meeting of the hospital staff twenty-four of its members signed a statement rebuking sharply the printing of such strictures on the profession, and asserting they knew of the existence of no such "clique" or "discrimination in attention given patients." Four of the staff, being out of the city, were unable, (if agreeable to the idea), to physically place themselves on record with their colleagues of the majority; while two of the other three, declined to sign the statement of the majority, but asserted they knew of no clique or discrimination. The thirty gave out a separate statement, wording it slightly different from the majority statement, asserting he knew of no clique existent or discrimination shown patients. With such practical unanimity of statement in the public press of the city on the part of the staff of this excellent institution, coupled with our personal knowledge of their high professional character and exquisitely ethical concept, both laity and guild may rest assured not only that neither "clique" or "discrimination" may by even by the remotest mischance find footing on this staff, but the very suggestion of the existence of such an anchroism on the Aesculapians of this fair South Carolina city is a solecism simply impossible of surmization. W.

EDITORIAL NEWS ITEMS

Dr. Baird H. Brooks announces that after September first, nineteen sixteen his practice will be limited to Obstetrics and Pediatrics offices 505-506 First National Bank Building Durham, North Carolina.

Dr. C. J. Ellen announces that he has opened offices in suite 321-323-326 National Bank Building, Greenville, N. C. Practice limited to diseases of the Eye, Ear, Nose, Throat and Fitting glasses.

Dr. Henry S. Stern succeeds Dr. B. E. Summers as medical inspector of the City Health Department of Richmond, Va. The appointment was made on account of the advice of Dr. E. C. Levy, chief health officer, of that City.

Dr. J. P. Beam, a well known and highly respected citizen of Piedmont, S. C., died on August 17th.

Dr. Beam was a professional gentleman who had the confidence and respect of a very large circle of friends.

The South Carolina State Board of Health will ask the coming Legislature for $25,000.00 for a new building at the State Tuberculosis Sanitarium to add 16 additional beds. The Institution now has 32 beds. The State appropriation of last year was for maintenance $25,000.00.

Dr. W. K. Reid of Charlotte, N. C., has spent a few weeks in New York City, studying its health department.

The City of Charlotte already has very fine health regulations. No doubt Dr. Reid will use his influence and bring into practical use many of the fine ideas he got while in New York.

Dr. R. Frank Flowe of Davidson, N. C., was married August 1st, 1916, to Mrs. Mary Robinson Warfield.

Dr. and Mrs. Flowe will make their home in Kannapolis, N. C. after November 1st.

Dr. Flowe is a prominent young physician. He graduated at the North Carolina Medical College in 1913.

Dr. Cary Dunlap, a very prominent physician of Middlebrook, Virginia, died on August 5th.

Dr. Dunlap was in every way a professional gentleman, that everyone, not only in his community, but in that section of Virginia, admired very much. He was graduated at the College of Physicians and Surgeons at Baltimore, Md., in 1893.

Dr. Marvin Dibrell Parham, one of the most prominent phsicians of Dinwiddie County, Virginia, died on August 17th.

At the time of his death, he was a patient at the Petersburg Hospital.

Dr. Parham had reached the advanced age of 79 years. For many years, he was considered the leading physician in his county. He was graduated at West Virginia University in 1860.

Dr. P. H. Allen, of Pennington Gap, Va., died on August 26th, at his home in Pennington Gap. He was one of the most prominent physicians and citizens in that part of Virginia. He had been in active practice until about five years ago when he suffered a stroke of paralysis.

Dr. Allen serves throughout the Civil war on the Confederate side—and was considered a surgeon of a great deal of ability.

"Typhoid Fever in Virginia."—The monthly report of the State Board of Health of Virginia, it is strange to say, does not give a decrease in the cases of typhoid fever for the last several months —or possibly a year or two. This is certainly strange with the prevalent use of the typhoid vaccination. Possibly they are not using this preventive measure as much in Virginia as we are doing in North Carolina and some other States.

The Fairfax Medical Society of Virginia, met in Alexandria, Va., on August 4th. The program was an interesting one. Several interesting papers were read and discussed. The following officers for the next term of one year were elected: Dr. R. L. Wilkins, Alexandria, President; Dr. C. L. Starkweather, Occoquan, first Vice-President; Dr. J. C. Blackstone, Washington, second Vice-President; Dr. T. C. Quick, Falls Church, Secretary; Dr. F. M. Brooks, Fairfax, Treasurer.

The Rockefeller Foundation is equipping and sending to the Sulu Archipelago, P. I., a hospital ship which will spend five years in this part of the Philippine group, furnishing dispensary medical service, instructing and nursing the natives, and endeavoring to accomplish through the lines of medical missionary effort what two hundred years of effort along the usual line of militar yactivity, has so far failed to brin gabout—the civilization of the Moros and their neighbors. Success will come to the enterprise ofr it is founded the rock of service to humanity.

Dr. S. P. Watson of Loris, S. C., died on August 15th. He was one of the most prominent physicians o fthat section of South Carolina.

Dr. Watson was born in Dillon County, S. C., in 1861, and was a member of the well known and prominent Watson family.

Dr. Watson was graduated from the College of Physicians and Surgeons in Baltimore in 1884, and practiced medicine in Loris since his graduation. He was highly esteemed and a useful member of his county and State Medical Association.

North Carolina Surgical Club: Third Itinerary.—Attended by the following well known North Carolina doctors:

Dr. R. L. Gibbon, Charlotte, N. C.
Dr. D. A. Stanton, High Point, N. C.
Dr. M. H. Fletcher, Asheville, N. C.
Dr. D. A. Garrison, Gastonia, N. C.
Dr. E. T. Dickinson, Wilson, N. C.
Dr. D. T. Tayloe, Washington, N. C.
Dr. J. P. Monroe, Sanford, N. C.
Dr. A. D. Parrott, Kinston, N. C.
Dr. R. Duval Jones, New Bern, N. C.
Dr. W. O. Nesbit, Charlotte, N. C.
Dr. C. W. Banner, Greensboro, N. C.
Dr. J. W. Long, Greensboro, N. C.
Dr. J. L. Nicholson, Washington, N. C.

Cleveland, O., Chicago, and Rochester, Minn., were visited and clinics attended, spending a few days in each city. Drs. Crille, Oschner and Mayo, each placed the visitors under kindly recollection for courtesies shown.

Dr. H. W. Miller, of Takoma Park, Washington, who is superintendent of the Takoma Park Sanitarium, an institution that belongs to the Seventh Day Adventists, and who is in charge of the Medical work of that denomination in the North American Conference, delivered an address some time ago, in which he made some very sensible remarks about health, diet, etc. He relates his experience of eight years in China. He believes that the medical profession has a tendency to advise the use of certain foods that are not what nature calls for. He believes if the people o fthis country expect to keep healthy, they must make material changes in the mode of their living.

Copies of this address are no doubt available—and anyone who is interested in the subject of diets in the different countries, would be greatly interested in reading it.

Dr. J. E. Malone, County Health Officer of Franklin County, N. C., has just completed an anti-tuberculosis campaign of his county having spent three months specially investigating the prevalence of this disease and giving health lectures among the people. Dr. Malone deserves special mention as one of the really efficient local county health workers in the field. He carries with him the experience of more than a quarter century geeeral practice of medicine, which it is but fair to again insist, gives a health officer a substantial equipment for his work simply not to be acquired in any other way. The public health courses of the schools are valuable, but specialism in health work, as in all other lines of medical specialism, should come as a gradual development after some years experience in the broadening field of general practice. Otherwise the specialist is very liable to lack the ability to take a general survey of conditions ,appreciating different symptom indices at their true valuation.

Wilson County, N. C. has been selected by the International Health Board of the Rockefeller Foundation and the North Carolina State Board of Health for a years scientific study and demonstration of unit health work. The work will be under the direction of Dr. B. E. Washburne, a former Carolinian who has for some years past been engaged with the Rockefeller Health propaganda operating in Trinidad, Brittish West Indes. This is the third North Carolina County to be selected by influences outside the staff for demonstration work on special lines of public health endeavor. At this time the U. S. Public Health Service is working out a model plan for the whole-time county health officer in Edgecombe County, in Cumberland County the Federal Children's Bureau is making a scientific study of the Children's Welfare Work, and September 1st in Wilson County Dr. Washburne will inaugurate his campaign for better health in Wilson County.

BOOK NOTICES.

A Manual of Otology. For Students and Practitioner. By Charles Edwin Perkins, M. D., F. A. C. S., Professor of Clinical Otology in New York University and Bellevue Hospital Medical College; Associate Aural Surgeon to St. Luke's Hospital; Assistant Aural Surgeon, New York Eye and Ear Infirmary; Fellow, American Otological Society, New York Otological Society, New York Academy of Medicine, etc. 12mo., 445 pages, with 120 engravings.

Cloth, $3.00, net.

Disease of the ear have assumed a major importance within recent years, largely because of the physiologic and pathologic relations that have been established between the ear and its adnexa and the brain; and also because of the growing role played by the infectious microorganisms in ear diseases. Moreover, disease of the ear are among the most common of the special sense disorders with which the general practitioner has to deal, and it is very essential that he should be up-to-date in his practical knowledge of the subject.

The author's long and very full experience both as a specialist and teacher has enabled him to produce a book which covers the subject completely and in a clear and concise manner. The handy size of the manual commends it for students' and practitioners' use; and nothing essential to a thorough understanding of otology has been omitted.

The prominence given to the five characteristic of the membrane (color, luster, position, intergrity and structure) in the chapter on the examination of patients and the clarity with which the changes in otoscopic appearances are pointed out in the consideration of diseases of the ear should enable the reader to cultivate a systematic method and to form his diagnosis more readily.

The sections on the inner ear give the present knowledge of the subject and are basedlargely upon the author's personal experience. The relation of the Chorda tympani nerve to facial paralysis and middle ear disease—not clearly given in any other book on otology—is here given in detail and represents the author's own observations.

Perkins' Manual of Otology represents the present status of this specialty, clearly set forth in practical, ready-to-use shape. It is a guide which can be followed by the student in college and by the general practitioner, as well as by the specialist, with both pleasure and profit.

Surgery of The Blood Vessels by H. Shelton Horsley, M. D., F. A. C. S. Illustrated. St. Louis. C. V. Mosby Company.

Dr. Hosley has affectionately dedicated this volume to his wife. The book contains two hundred and ninety-six pages and about five pages of index, his preface occupies three pages and contents two pages.

The illustrations in this book are quite numerous. Many of them, however, have been so touched up by the ambitious artist that they cannot be of but very little value in illustrating the text. The surgeon who expects to do this kind of work, and if he expects to be aided by illustrations, should be accurate.

We hope that Dr. Horsley's book will be appreciated by the medical profession of this country. Dr. Horsley is a very energetic surgeon, and in this line of work that he has written a book about exhibits this fact. In all probability it will contribute something that is valuable to the surgeon.

The King's Men by John Palmer, Author of "Peter Paragon." Price $1.35. G. P. Putman's Sons, New York and London—The Knickerbocker Press, 1916.

A Story with a war-time setting, but the reader is not taken into the trenches, does not participate in a charge, and hears only once—and then from a distance—the muffled boom of artillery. It is the life behind the firing lineh, the inner drama of a nation's transformation, that the author depicts in his striking characters and scenes. The world of yesterday was the world of cucubism and futurism, of the culture of self, of ruthless success in industrialism, of class warfare, of shallow amusement. To-day, in England—and similar transformations are being achieved in the other warring nations—the world wears a different aspect. Men have thrown their favorite fads into the waste-paper basket, recognizing them as anachronisms, and they look eye to eye with all the sense of solidarity that aroused nationhood implies. Yet such a transformation is not effected easily, not without protest and misgiving—in some cases it tears a man up by the roots—and that is why Mr. Palmer's story is not only a striking picture of a contemporary phenomenon but is full of human interest.

Any one who has had the pleasure of reading "Peter Paragon" can imagine what this book is. Mr. Palmer is a very attractive and beautiful writer—and does not over-paint his pictures. He has a way of telling things as they are, which is a great accomplishment for any writer. This last book entitled "The King's Men" is possibly a better production than this Peter Paragon. That is a sufficient recommendation for the book.

Venesection. A Brief Summary of the Practical Value of Venesection in Disease—For Students and Practicians of Medicine—By Walton Forest Dutton, M. D. Fellow American Medical Association; Member Medical Society of the State of Pennsylvania; Allegheny County Medical Society; Ex-President

Carnegie Academy of Medicine; Pennsylvania Society for the Prevention of Social Disease; American Association for the Advancement of Science; American Academy of Political and Social Science; International Congress on Tuberculosis, etc. Illustrated with Several Text Engravings and Three Full-page Plates, One in Colors. Philadelphia, F. A. Davis Company, Publishers, English Depot, Stanley Phillips, London, 1916.

This is the best book on this subject that has been written. It contains 220 pages. It is thoroughly and appropriately indexed. While it has only three full-page plate illustrations, it has many small illustrations that are very valuable —certainly enough to illustrate the text.

In preparing this work on venesection, it has been the author's purpose to apply to the very day problems of the practice of medicine the knowledge with which the general practician should be familiar. Physicians and students have long felt the need of such a work. The author does not claim the book to be a treatise on disease. The book is meant to give, in a concise and convenient way, the therapeutic value of an agent which has been used successfully by some of the most eminent physicians of past centuries, and will continue to be used as long as the human body is heir to disease. The advances in medicine and surgery require a serious consideration of the greater conditions remaining before us, and upon the medical profession the laity depend for the alleviation and cure of disease.

The neglect of scientific venesection, as a therapeutic agent, has been recognized by some of the foremost medical men of our time, yet it remained for some one to present the subject logically to the profession.

Any one who is interested in the subject of venesection cannot do better than to buy this book.

Pittsburch—ASketch of its Early Social Life by Charles W. Dahlinger,The Knickerbocker Press, 1916.

From the Pittsburgh of the present, the embodiment of intensified industry, the reader is recalled to the no less stirring days when the settlement was an outpost in the westward spreading civilization. The record is traced with reference both to events, institutions, and personalities, from the close of the French and Indian War to the early years of the nineteenth century.

As the principal stopping place in the journey from the East to the Mississippi valley in early days, the settlement at Pittsburgh had special prominence and developed a distinctive social life. The story of the settlement in its formative period (1750-1800), and its development in the early decades of the nineteenth century, as based on newspaper and other contemporary accounts, is clearly set forth by Mr. Dahlinger, and is of more than local interest.

The Book contains 216 pages. Anyone who is interested in the development of a ggreat city like Pittsburgh, can read the Book from the beginning to the end and never tire.

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What Is Coming—A European Forecast by H. G. Wells. Price $1.50. New York, The MacMillan Company, 1916.

Mr. Wells is a prophet by use and wont. He is more interested, so he tells us in this book, in the tomorrow than in the today. The past he regards simply as material for future guessing. Remembering his many successful forecasts of previous years, this latest volume, in which he deals with social conditions after the war, is possessed of great significance. How are people going to take the waste of the world's resources, the killing of a large majority of the men in nearly every European country, universal loss and unhappiness? What, in short, is in store for the next generation? The Outlook for the Germans, The Relation of the United States, France, Great Britain and Russia, The Effect that the War Will Have on Women, Its Effect on Socialism, these are but some of the topics which he takes up.

The Book contains 294 pages—and it is certainly worth the money, $1.50. The writer has once more been indulging in prophesying—and his forecasts like his romances, will no doubt interest many American readers. Any one who has a liking for this kind of literature, should read the Book.

Black Sheep Adventures in West Africa. By Jean Kenyon Mackenzie With Illustrations. Price $1.50. Boston and New York. Houghton Mifflin Company. The Riverside Press, Cambridge, 1916.

"Black Sheep" is a delightful and unique record of the experiences and adventures of Jean Kenyon Mackenzie, a worker in the Presbyterian mission field in West Africa from 1904 to 1913. The ten years preceding the war was an era of great missionary development of this district. Self-support was the major intention. At Flat there was a fair-sized industrial plant; ten thousand pupils

were at work in the various schools. Medical work progressed amazingly; health, sanitation and progress followed the efforts of the sixty white missionaries and their corps of four hundred black assistants. The writer of this book holds herself fortunate to have been in a measure helpful to this work of civilization, and she has written of her life in Africa and of the people there with rare understanding and sympathy; also with color and a vivid sense of the beauty of tropical landscape and the picturesqueness of the natives. The material was originally prepared in the form of letters home, therefore it has the effect of an intermittent diary of her life during the eleven years of her labor. It is impossible in a few words to describe the freshness, the charm and interest of this unusual book. The author has the gift of getting under the skin of the African nature, of literally "seeing black."

To anyone who has traveled in Africa even to a small extent and has been interested in the literature coming from that part of the world can thoroughly appreciate this book. It contains 314 pages and is interesting from the beginning to the end. I purpose to read it through.

The Problems and Lessons of the War. Clark University Addresses December 16, 17 and 18, 1915. Edited by George H. Blakeslee, Professor of History and International Relations, Clark University. With a Foreword by G. Stanley Hall, President of Clark University. Price $2.00. G. P. Putman's Sons, New York and London. The Knickerbocker Press, 1916.

These addresses are the crystallized convictions of influential, public-spirited men and will stimulate thought and mould action. The addresses, twenty-five in all, deal with preparedness, the Economic Aspects of the War, and the Rights and Obligations of Naturalized Citizens. They present clearly the American, British, and German viewpoints of the world conflict.

This volume in all probability is the best of its kind that has been published that deals with the various war problems. Professor Blakeslee is a very interesting orator and lecturer. Many of these magnificent lectures he has exhibited a wonderful familiarity with the various subjects that he has discovered. I take great pleasure in recommending the book. It contains 380 pages. It has no illustrations—they are not necessary.

Physics and Chemistry for Nurses. By Amy Elizabeth Pope, Graduate of the School of Nursing of the Presbyterian Hospital, in the City of New York; Special Diploma in Education from Teachers College, Columbia University, New York; Formerly Instructor in the School of Nursing, St. Luke's Hospital, San Francisco, Cal. Author of "Quiz Book Nursing," "Anatomy and Physiology for Nurses," "A Medical Dictionary for Nurses," and with Anna Maxwell, of "Practical Nursing." Illustrated. Price $1.75. G. P. Putman's Sons, New York and London. The Knickerbocker Press, 1916.

In many States, Chemistry has been made a required subject for Registered Schools of Nursing. There are only one or two books on Chemistry for Nurses on the market, and these take for granted that pupils have some knowledge of the subject. As a matter of fact, scarcely twenty-five per cent. of the college graduates who enter Schools of Nursing have studied Chemistry and Physics. An important feature of Miss Pope's volume is that it includes not only elementary Chemistry but the Chemistry of cooking and cleaning, a point that receives much emphasis in teaching in all modern training schools.

It is certainly well enough that Miss Pope has written this Book—certainly inasmuch as literature touching upon this subject for nurses is so little and the most of it obsolete. The book is a good one in every way—contains 444 pages, and is accurately and appropriately indexed. It gives us pleasure to recommend the book to nurses—and it should be incorporated in the teaching of all training schools for nurses.

The Great Revival in the West, 1797-1805. By Catharine C. Cleveland. Price, $1.00. The University of Chicago Press, Chicago, Illinois.

Although there are many allusions in the histories to what was generally known as the Kentucky Revival, at the close of the eighteenth century, this volume contains the first connected story of the episode. It describes the religious condition of the West prior to 1800, analyzes the teachings and methods of the revival leaders, and gives a concise account o fthe spread of the revival and its culmination. There are maps showing the distribution of population in 1800 and the approximate locations of Presbyteries, Baptist associations, and Methodist circuits. The concluding chapter is a sane and well-considered estimate of the results of the movement.

This is a good book. It is interesting from the beginning to the end. It con-

tains 215 pages. It i sfull of information. Many pathetic stories are related, and many amusing incidents are recorded. Dr. Cleveland writes beautifully. The style is attractive.

The Things Men Fight For—With some application to Present Conditions in Europe. By H. H. Powers, Ph. D. Sometime Professor of Economics in Stanford University. Price $1.50. New York, The MacMillan Company, 1916. All rights reserved.

The national sentiments and desires of the various warring countries of Europe are emphasized in this book; in fact in Dr. Powers' opinion it is national patriotism that is at the root of the whole matter. From this viewpoint he surveys the entire European situation, his ultimate purpose being to arrive at an impartial and adequate explanation of the fundamental reasons which have called each nation to arms. Many of the larger international questions come up for discussion—the relation of the Far East to the West, the control of trade routes and the future of nationalities, for example. The author's style, vivacious and often eloquent, lends added distinction to one of the most significant and able of recent treatments of the world problems of today.

This is certainly a thoughtful consideration of the problems that are going on at the present time in Europe and in America—and really all over the world. Dr. Powers writes well. He surveys the entire European situation from the viewpoint of national patriotism of each of the countries engaged in this great war.

The Hermit Doctor of Gayna. A Love Story of Modern India. By I. A. R. Wylie, Author of "The Native Born," etc. "This Kiss to the Whole World" —Beethoven's Ninth Symphony. Price $1.35. G. P. Putman's Sons, New York and London. The Knickerbocker Press, 1916.

The author of "The Native-Born" has given us, in "The Hermit Doctor of Gaya," another vivid picture of Anglo-Indian life, a real hero of war, but the man who day by day and hour by hour offers his life freely in the great fight against famine and disease; a heroine of striking personality and character; a tale of love, hardship, mystery, and mutiny; and above all, a truly interesting story.

The frontis-piece of this book is beautiful. It is an interesting book from the beginning to the end—and is well worth $1.35.

Who Is Insane? By Stephen Smith, A. M., M. D., LL. D. Commissioner in Lunacy of the State of New York, 1882-1888. Price $1.25. New York. The MacMillan Company, 1916. All rights reserved.

This book of Dr. Smith's is certainly based on sound knowledge and years of experience. He was, as is usually known, for many years, Commissioner of Lunacy of the State of New York—and the book is a commentary upon his work in the Institution for the Insane and the Charities and Reformatories of the State of New York. His discussion on "Who is Insane" is a very interesting subject, especially when one thinks about it. The reviewer would be interested in commenting on this very valuable book for several hours, but the space is not available.

The Treatment of Diabetes Mellitus, with Observations Upon the Disease Based Upon One Thousand Cases. By Elliott P. Joslin, M. D., Assistant Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Collaborator to the Nutrition Laboratory of the Carnegie Institution of Washington, in Boston. Octavo, 440 pages, illustrated. Cloth, $4.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The New Treatment of Diabetes—the Allen treatment—by means of fasting, and the importance of physical exercise for diabetic patients, are fully discussed in this work. Fasting is in itself a distinct advance, but the practical simplification of treatment which it entails is an almost greater advantage.

Oddly enough, with the completion of this book came the completion of the author's first thousand cases treated in private practice. The book contains the results of his experience with these cases and is written for the general practitioner. Incidentally, it contains nothing which diabetic patients may not read with profit, and it will be found a useful book to place in their hands.

Complications of Diabetes are described along with their treatment, thus saving repetition and showing the doctor how to handle each complication when it develops. The hopeful tone which the author's experience has enabled him to assume regarding such complications as tuberculosis, arteriosclerosis, and gangrene will be found most encouraging. The section on Surgery will enable the surgeon to operate on diabetic patients without sending them into coma.

Under Aids in the Practical Manage-

ment of Diabetes Cases the author gives a list of things every patient should know, complete directions for nurses, history charts and dietary and urinary records now successfully used in many institutions, and the actual diets employed in typical groups of cases. The section on Foods and Their Composition is so arranged as to make it unnecessary for physicians owning this book to possess any other book on food values, either for treatment of diabetic or other patients. Standard recipes and diets for severe cases of diabetes are given, notably an appropriate diet for severe diabetic patients who are poor.

Essentials of Laboratory Diagnosis, Designed for Students and Practitioners, By Francis Ashley Faught, M. D., Director and Assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, etc. Philadelphia, Pa. Containing ten full-page plates (four in colors) and fifty-nine text engravings. Sixth Revised Edition. Price $3.00. Philadelphia, F. A. Davis Company, Publishers, English Depot, Stanley Phillips, London, 1916.

There has been a great demand for this most excellent work. The brief period of time that has elapsed since the last extensive revision of this volume was made that very few changes in the main body of the work have been found necessary for this new sixth edition.

The important additions, which are presented in the Appendix, consist of a full account of the Schick Test for Determining Immunity to Diphtheria Infection; The Determination of Gas Bacillus in Feces, particularly in Relation to Diarrhea and Digestive Disturbances of Childhood; and An Accurate New Method for the Determination of Urea in the Urine, Blood, Spinal Fluid, etc.

Dr. Faught exhibits every evidence that he is thoroughly familiar with the subjects with which he deals. His style of writing is very logical—and he explains himself in such a way that it is not tiresome to the reader. It gives us pleasure to recommend the Book. It contains 458 pages and is very appropriately indexed. The illustrations are in every way appropriate.

The Delta of the Niger River.

The Niger is the third greatest river in Africa and the eleventh in rank in the world. How did it happen that for generations no one knew the place and the manner of its junction with the Atlantic? The problem was really a hard nut to crack, though with our present methods of Africa exploration and our knowledge of how to live in the deadly climate of the delta, the mystery would probably have been solved in a few months. The Niger delta, one of the largest in the world, stretches 250 miles along the coast. Most of its streams are small; and, skirting the coast, one can hardly observe them, so completely are they hidden in the dense region of mangrove swamps. Explorers soon found that they might struggle for weeks up a stream only to prove it a blind alley; for a peculiarity of the Niger is that not a few independent rivers form between the delta branches and have no connection with the Niger itself. Most of the delta is a network, difficult to enter or to retreat from.

All nature is hideous there. The brown waters lazily coursing; the evil odors of the slime and ooze; the repulsive animal life from crocodiles to pythons, lurking in the shadow for their prey; and a choice collection of insect plagues including the anopheles mosquito with its poisonous sting. These terrible conditions, persisting for about forty miles inland, are then succeeded by solid earth, noble trees and sweet air; but the swamp region of the lower delta is one of the most forbidding parts of Africa.—From "Mystery of the Niger River," by Cyrus C. Adams, in the American Review of Reviews for August, 1916.

Miscellaneous.

The term aerial disinfection is employed to mean the use of the air as a vehicle for diffusing, to all exposed surfaces of the room and its contents, a gaseous germicide. The disinfection of the air itself, more or less loaded with germ laden dust particles as it usually is, may be regarded as incidental, just as would be the case with water used in making a disinfectant solution. Air and water are the natural agencies for cleansing an infected apartment. Why should we not render the former germicidal as well as the latter? Some of the most prominent opponents of fumigation advocate a renovation of infected apartments so thorough as to include repapering, repainting, etc. They would subject the scrub woman, paperhanger and painter to the danger they thus clearly recognize, without the protection which a prior and efficient fumigation would afford.

An eminent scientist has placed before a symposium of health officers seven questions hereinbelow mentioned:

1. After what diseases do you think it desirable to fumigate?

2. Do you regard formaldehyde as the most satisfactory aerial disinfectant? If not, what in your opinion is better?

3. Do you think the conclusions reached by Mr. Adams justified?

Reads as follows:

"I am assuming in what follows, only two points: That you are an adult, and a non-consumptive at present. On the hypothesis:

1. You have had tuberculosis.

2. You have cured yourself of it.

3. In the process of curing yourself you have so fortified your body against it that you are safe against "catching" the disease from any other person.

4. If you now become a consumptive it will be through a relapse and by your own fault.

4. Even if this new theory of tuberculosis were generally accepted, would it not point to the necessity of fumigation after pulmonary phthisis to protect children?

5. Have you, in your experience, thoroughly satisfied yourself as to whether or not communicable diseases are commonly conveyed by objects handled by the patient? In other words, what role do fomites play in carrying infection?

6. How is it that some sanitarians who advise burning books handled by a person having a contagious disease, regard the fomite theory, as applied to things generally, so lightly that they do not fumigate the room and its contents?

7. Is not the viability of pathogenic bacteria so influenced by deficiency of light and fresh air, and so affected by atmospheric conditions in general, as to make it unwise to rely upon disease germs shortly succumbing to conditions practically unattainable without fumigation?

A careful study of the foregoing questionaire will doubtless present many phases of the varied theories based on the experiences of our leading sanitarians, and, as good citizens, the laity itself should appreciate the difficulties encountered in arriving at a majority vote. Yet a large majority (about 95 per cent.) of the state health officers, joining in the symposium, favor a continuance of formaldehyde gas disinfection on the practical basis that one cause of spreading communicable diseases (room infection) should not be neglected because another has been found (carriers), whatever the relative importance of the two agencies may be. Destroy bacteria by volatilizing formaldehyde, without ignition, in warm moist air.

The Best Evacuant.

The greatest care should be used in prescribing an evacuant to guard against the tendency of many cathartics to cause a binding after effect. Pil. Cascara Comp. —Robins stimulates a flow of secretions thus encouraging a normal physiological evacuation; normalizing peristaltic action instead of inhibiting it as so many evacuants and cathartics do.

They contain no Strychnia to poison no Belladonna to dry the secretions or abnormally dilate the pupils—nothing to injure your patients.

They are suited to all conditions, requiring more or less alimentary stimulation. No unpleasant symptoms develop from continued use.

A trial the most convincing argument.

On request, A. H. Robins Co., Richmond, Va., will cheerfully send you liberal samples. ad-12-16

Concerning Cathartics.

To the layman, a cathartic is simply a cathartic, and nothing more. One thing is as good as another, as long as it "moves the bowels." To the physicians there is a vast difference between "moving the bowels," and inducing normal bowel action.

For years Strychnine was the stock ingredient of cathartics, for the purpose of stimulating the muscle to peristalsis. But nowadays we realize that Strychnine more often inhibits peristalsis by overstimulation, and that the best stimulant of intestinal muscles is the intestinal secretions.

Pil. Cascara Comp. Robins contains no Strychnine to force the musculature, nor Belladonna to inhibit the secretions. On the contrary it stimulates the flow of secretions and normalizes peristalsis. It is, in fact, a normal Cathartic.

The Bowels Are Secretory Organs.

It is the failure of the secretory function of the bowel, together with a poor bile secretion, which, in nine cases out of ten, is responsible for constipation.

Most carthartics altogether overlook this factor and address themselves solely to a stimulation of the musculature. Some even inhibit intestinal secretion. The result is a rapid, unsatisfactory bowel movement, followed by paralytic reaction.

Pil. Cascara Comp. Robins is a rational therapeutic formula, which promotes a natural flow of secretions, which is, in turn, the physiologic stimulant of peristalsis. Thus a normal evacuation is produced, without subsequent inhibition.

Formula of Pil. Cascara Comp. Robins-Mild.

Cascara ..... 1-2 gr.
Podophyllin ..... 1-16 gr.
Colocynth ..... 1-4 gr.
Hyoscyamus ..... 1-12 gr.
Dose 1 to 3.

Pil. Cascara Comp. Robins-Strong is 4 times strength of the Mild.

ad-12-16

Straining at Stool.

It is pretty safe to say that any bodily condition that is aggravated by pressure or congestion is aggravated by that daily straining at stool which is the rule rather than the exception, with such a large percentage of humans.

When one stops to realize that in the act of defecation, every abdominal muscle is brought into play, and that many individuals customarily strain at stool with a force great enough to cause their faces to flush and their temporal veins to bulge out—then it is that one appreciates the tremendous force brought to bear locally upon the abdominal and perineal muscles, and generally upon the whole body.

Locally: First, the possibility of hernia through some weakened part of the abdominal wall (2) Aggravation of prostatitis, not only due to the increased congestion of the gland caused by straining, but also made worse by the pressure caused by the hard dry feces that are very likely to accompany straining at stool, and further aggravated by the bacterial phase—the element of the autotoxemia which is more than likely to be present.

So that hernia and prostatitis are two conditions that are either caused or aggravated by straining at stool, although it is safe to say that there are at least half a dozen others, not the least of which are hemorrhoids, fissure, and prolapse—uterine in the female and rectal in both sexes.*

Since defecation is a necessary function, and cannot be suspended, it would seem that the best remedy for the difficulty of defecation would be to supply the lubrication that is often lacking and these bringing about the necessity of straining at stool.

Whatever will supply such lubrication without enervation or untoward after effect would be the most desirable method.

There is one outstanding reason why "Interol" does away with—or at the very least minimizes—straining at stool, namely, "Interol" has a peculiar lubricating body by which it mixes with the feces before they are feces, spreads over and mixes with them and lubricates them in their passage through the colon, until they reach the rectum, from which they are finally expelled without necessity of very much straining.

There are other features "Interol" possesses, but this one is perhaps its greatest, and if you are personally interested in this subject, we would be glad to send you a pint bottle with our compliments so that you may make personal observation without having to take our word for the merits of "Interol."

Sander's Eucalyptol.

Sander's Eucalyptol is characterised by Mr. De Bavay, the eminent analytical chemist of Melbourne, as comparing with the commercial eucalyptus products as well refined and matured brandy compares with raw spirit. Not only does the primary distillation from the selected leaves of the best species give it a unique position, but the fact of it containing a large amount of eudesmol-peroxide imparts to it a superior antiseptic efficiency and freedom from irritant effects. It has great antipruritic power, and whereever there is inflamed skin which causes intolerable itching, as in pruritus ani or vulvae, eczema, simple and contagious impetigo, etc., the following will be of great service:—R. Acidi Carbolic, 15 grs.; Sander's Eucalyptol, 30m; Ung. Zinci Oxidi 1 oz. As soon as the state of the skin permits painting with the pure Sander Eucalyptol will cause rapid improvement especially in all chronic skin affections. In the troublesome facial eczema of infants from 20 to 60m of Sander's Eucalyptol should be added to the ounce of boracic ointment and applied. Astonishing results have also followed the application of the pure Sander Eucalyptol to inflamed gums and intractable ulcers.

There are now on the market a number of crude oils of eucalyptus which contain the woody resinous extracts of the various species from which they are distilled and which lack the most preliminary refinement. They are generally bought from the crude distillers by trading concerns who are ignorant of what they contain, and are frequently pushed under coined names. It is therefore essential to specify Sander's Eucalyptol if the physician desires to safeguard his reputation and to benefit his patient.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page XIV this issue.)

A Valuable New Catalogue.

Parke, Davis & Co. announce the publication of their 1916 price list,w hchi is said to be an improvement in many respects over any previous issue of this valuable catalogue. The book is divided into three parts: Part 1—Fluid Extracts, Pills, Elixirs, Syrups, Tablets, etc.; Part 2—Specialties, into which have been merged Special Preparations; Part 3—Bilogical Products. The nomenclature of the U. S. P., Ninth Revision, has been adopted in the new list ,the term "milliliter" ("mil") being substituted for the "cubic centimeter." The standards of the new U. S. P. applying to fluid, solid and powdered extracts and tinctures, together with the doses, have also been adopted. All Harrison-act items (products that must be ordered on official order forms) are clearly distinguished. Its amplitude, its handy classification, its comprehensive general index, all serve to make the new catalogue a reference book of the utmost value to medical practitioners. We understand that the book will be ready for distribution about August 1st. Physicians are advised to write for a copy, addressing their requests to Parke, Davis & Co., Detroit, Mich.

MERCURIALIZED SERUM IN SYPHILIS.

Mercurialized Serum represents an important advance in the administration of mercury for the treatment of cerebral and systematic syphilis. In cerebral syphilis the spirochetes are located in the cerebrospinal system and are unaffected by the intravenous or other use of the usual antisphilitics. Dr. C. M. Byrnes, of Johns Hopkins University, has discovered that bichloride of mercury losses its corrosive properties and may be administered intraspinally if dissolved in the proper amount of horse serum, thus bringing this powerful antisphilitic remedy in direct contact with the spirochetes in the intraspinal and intracerebral regions. Intravenous injections of mercurialized serum are also employed for the treatment of systemic syphilis.

Intraspinal Treatment.

For intraspinal injection, the H. K. Mulford Company furnishes mercurialized serum in tubes of 30 c. c., containing 0.0013 Gm. (1-50 gr.) Mercuric Chloride, known as Mercurialized Serum No. 1; in tubes of 30 c. c., containing 0.0026 Gm. (1-25 gr.) Mercuric Chloride, known as Mercurialized Serum No. 2: in ten 30 c. c. ampuls, each containing 0.0013 Gm. (1-50 gr.) Mercuric Chloride, known as Mercurialized Serum No. 3 (Hospital size), and in ten 30 c. c. ampuls, each containing 0.0026 Gm. (1-25 gr.) Mercuric Chloride, known as Mercurialized Serum No. 4 (Hospital size).

Intravenous Treatment.

Lloyd Thompson, Ph. B., M. D., of Hot Springs, Ark., in a preliminary report, published in The ournal of the American Medical Association (May 1, 1915, page 471), reports administering mercurialized serum intravenously, without the occurrence of phlebitis and periphlebitis. While not recommening mercurialized serum in all cases of syphilis, he finds it of great advantage where quick results are imperative and to overcome the great pain and irritation following intramuscular injections of mercury.

The preliminary report comprises eight cases, in which sixty-six injections were made altogether, and in no case was there the slightest amount of phlebitis. Dr. Thompson states that it is not necessary to use autogenous serum. He prepared a solution of mercuric chloride of such strength that each cubic centimeter contained 22 milligrams (1-3 grain) of the salt. This solution was divided for dosage as convenient. The initial dose in all cases was 1-75 c. c. or 5.5 mg. (1-12 grain) of mercuric chloride. This was gradually increased to 7 c. c. or 22 milligrams (1-3 grain). Quite severe ptyalism occurred in one case after a total amount of 131 milligrams (1 5-6 grains) had been administered; and three of the other cases showed slight symptoms of ptyalism after a total amount of 2 2-3 grains had been administered. The injections were then discontinued. While bichloride of mercury, combined with normal serum, is non-corrosive, it should be remembered that it is just as poisonous as an aqueous solution of mercuric chloride, and therefore, its dosage should be reckoned the same as that of mercuric chloride.

To supply the demand for mercurialized serum to be used intravenously, the H. K. Mulford Company is furnishing mercurialized serum in sealed ampuls, using for that purpose normal serum from the horse. These syringes are of two strengths, namely, 1-12 grain and 1-6 grain.

Helping the Cell to Help Itself.

Alkalol is a scientific therapeutic agent based upon correct physiologic principles adapted for practical use.

Alkalol is adequately and absolutely adapted for use in healing diseased tissues, copying Nature's particular means to defend the tissues against bacterial attack or toxic irritation. It aids in the re-establishment of normal equilibrium,

promotes cell activity, the resolution of crusts ,exudates or pus and aids cellular metabolism. It soothes and relieves irritation and soreness, promotes healing and opposes bacterial action or the effect of toxins. It may be used upon any tissue, externally or internally, without the possibility o firritation, discomfort or danger. It is pleasant and agreeable to use. It does not stain. It is economical to use.

Alkalol is its own best advertisement, and its present extensive sale has been built on the recommendations of physicians who have personally tested its therapeutic properties.

Physicians who would like to know more about Alkalol and the value of its use in the treatment o fdiseased and inflamed mucous membranes, will be interested in a little booklet issued by the Alkalol Company, of Taunton, Mass., entitled, "Helping the Cell to Help Itself." This booklet, together with a liberal sample of Alkalol will be mailed to any physician upon request.

The Commonest of Human Ills.

Probably the commonest single ill of modern mankind is what in lay parlance is termed dyspepsia, or in more scientific circles, gastric insufficiency, peptic deficiency, apepsia, and so on ad libitum. The actual condition—the result of abusing the stomach by improper food, irregular feeding, bad habits, etc.—is a marked decline in the secretory activity of the gastric glands. The symptoms are legion but well summed up by the patient when he speaks of his suffering as "stomach trouble."

Overcoming Hepatic Engorgement.

Active stimulation of the liver is often urgently needed in certain diseases—notably those of an auto-toxic nature, or characterized by faulty elimination—but not infrequently the efficiency of the remedy used is modified—or completely nulled—bythe catharsis incidentally produced. In Chionia, a preparation of Chionanthus Virginica, the practitioner fortunately has an effective cholagogue that can be relied upon to increase the functional activity of the liver to a marked degree, without unduly stimulating the bowels.

Chionia is invaluable, therefore, for relieving hepatic engorgement, overcoming biliousness and promoting free elimination of the biliary products. In other words, the use of Chionia assures the restoration of hepatic efficiency, but unlike other cholagagues, without catharsis or purgation.

Recognition of the true state of affairs leaves the physician but one course to follow, activation of the glands of the stomach. Bitter tonics, dilute acids and remedies galore have been used with varying degrees of success, but the remedy that has proven most uniformly satisfactory in restoring functional activity of the gastric glands is Seng. This is a trustworthy tonic to the stomach, a true secernent, that may be relied upon to restore the physiologic activity of the glands and thus overcome the distress and discomfort that make the gastric patient's life so miserable and burdensome. Have you some troublesome case of gastric insufficiency? You will be highly gratified at the results you can obtain with this useful remedy. Write for a sample to Sultan Drug Co., St. Louis, Mo.

Where its Main Virtue Lies.

If its main virtue lay in its palatability the popularity of Cord. Ext. Ol. Morrhuae Comp. (Hagee) would have been but transitory, for careful clinicians demand more than superficial qualities in the therapeutic agents they use; hence, one is justified in assuming that the reason why Cord. Ext. Ol. Morrhuae Comp. (Hegee) has held favor with the profession all these years is to be found in the fact that it does everything expected of cod liver oil. And, in fact, it does too, for it contains all of the essential qualities of the oil subjected to a process that emphasizes their usefulness when administered in indicated conditions. If palatability is a factor with you in choosing remedial agents then write Cord. Ext. Ol. Morrhuae Comp. (Hagee), when ordering a product of this character.

Campho-Phenique Powder.
The Ideal Antiseptic Dry Dressing.
Non-Irritant, Non-Poisonous and Locally Antiseptic.
One of the Most Efficient Substitutes for Iodoform.

Campho-Phenique Powder is an almost perfect germicide. It prevents in nearly every instance the possibility of the formation of the toxic products of germ life, and absorbs any excess of secretion, thus meeting the indications of an ideal antiseptic dry dressing. It is adapted for use in all cases in which iodoform and other dry dressings are indicated, and generally gives superior results. It is pre-eminently antiseptic in character, efficient as a germicide, and finally, its anaesthetic effect greatly enhances its value as a dressing.

Campho-Phenique Ointment.
"Formerly"
Scrofonal.

Campho-Phenique Ointment is essentially an oleated Camphor Phenate, which has been so combined with a proper excipient as to form a pleasant and homogenous ointment. It is indicated in such skin diseases as Acne, Acne Rosacea, Eczema, and various forms of Lichen, Seborrhea and Psoriasis, and especially those which are inflammatory in nature and origin. A large clinical experience ofof various physicians has thoroughly demonstrated this fact. It has been used with excellent results in Parasitic Eczema, Sycosis, or Berber's Itch, and Scrofula. If persistently used, it is bound to effect a permanent cure in all cases where an ointment of this nature is indicated.

CHLORO-PHENIQUE in an aqueous antiseptic and germicide of remarkable merit indicated in all conditions where an eqeous solution can be used to great advantage, especially among doctors and dentists of higher standing. It is non-irritant to the skin or mucous membranes when properly diluted, or may be used pure as indicated. It possesses superior antiseptic properties, and as a WERMICIDE, it acts with remarkable success in all cases where it is necessary to use a spray.

CHLORO-PHENIQUE ma ybe used pure or diluted, as indicated.

In Diphtheria or Sore Throat use pure, in form of spray.

For a gargle, mouth-wash, tooth-wash, or for cleaning the buccal cavity, dilute with water one to three.

For the nasal cavity, dilute with water one to four.

As a Vaginal douche or in Leucorrhoea, Gonorrhoea, Dysentary, Rectal Troubles, Gynaecological and Obstetric cases dilute with water one to four.

In surgical operations as a prophylactic wash, use pure.

In Ulcers, Abrasions, Abscesses, Cavities, etc., use pure for a dressing or as an injection.

As an Antiseptic wash for Surgical Instruments, use pure.

A full trial of this preparation will convince the most skeptical practitioner of its merits. A thorough trial of the sample of this preparation will prove Chloro-Phenique to be a reliable antiseptic in the every day use of the practicing physicians, dentists and surgeons.

Sander's Eucalyptol in Pulmonary Affections.

In all bronchial troubles it is essential that whenever eucalytus is used it should be free from irritant effects, and Sander's preparation is prepared specially with this end in view. To obtain the best results from its use a few distinctive rules have to be observed. It should not be given internally in acute bronchitis, for the expectoration is diminished by it. In the early stage of acute from a foment to the chest on which 20 to 30 drops of Sander's Eucalyptol are sprinkled. The Eucalyptol is inhaled together with the steam. In the subacute broncho-pneumonias of children, 30 drops of Sander's Eucalyptol should be added a tablespoonful of hot olive oil and the whole chest thoroughly rubbed. The friction induces the child to fill the collapsed lung-tissue and to inhale the Eucalyptol.

Its internal administration should be reserved for the chronic bronchitis with profuse expectoration. It should then be given in 5 drop doses either in a tablespoonful of water, or, when 01. morrhuae is indicated, it can be added in the proportion of 5 drops to a drachm of cod liver oil, the taste of which it disguises very effectively. Whenever the discharge is purulent or foetid (bronchictasis and foetid bronchitis), or when an antispasmodic and antiseptic effect is desired, as in emphysema and asthma the antiseptic inhalation below will give great relief.

In all tuberculous cases Sander's Eucalyptol should not only be given internally with cod liver oil, but the following inhalation, especially when used continuously, will change the clinical picture often very quickly and decisively. R. Acidi Carbolici, 1 dr.; Tr. Iodi, 1 dr.; Sander's Eucalyptol, 2 dr.; Spir Chloroform, q.s. 1 oz.; inhale 15 drops frequently from a Robinson's inhaler.

Sander's Eucalyptol, unlike other eucalyptus products, is non-irritating. It was introduced to the profession in 1875, and has the endorsement of men like Prof. Dr. Hazard, the late Lord Lister, Prof. Dr. Mosler, and other eminent physicians of the U. S. and abroad, who have used it in the various affections for which it is indicated, and it has, as Prof. Dr. Mosler states: "up till now always rendered me the most excellent services."

adv.

"Elixir Saloform Comp., Flexner." Contains 20 per cent. Alcohol. An efficient remedy for Rheumatism, Gout, Cystitis and Uric Acid Solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. (See page XIV this issue.)

Double Pulley Extension.

It is a tube that will telescope to fit any bed. Curves out 5 inches from the foot of bed. The vertical piece that supports the pullies slides up or down or any place along the bar. The pullies are six inches apart, and by a thumb screw can be tilted either way. The adhesive going direct to pulley from either side of the foot without the block of wood, holds the foot at any angle. A loose pulley hanging to the rope to which a single weight is attached gives even traction on both sides. Can be adjusted to any bed in three minutes. Can be clamped onto any bed in three minutes. You will say, as all doctors do Why did we ever ise the single pulley?.

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ad-9-16

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ad-4-17

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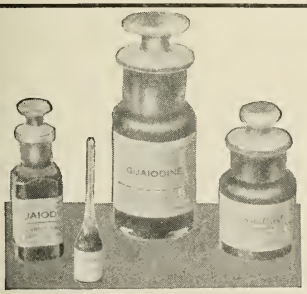

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About Soporifics.

The measure of a soporific's usefulness is found not in any single quality but in its adaptability to the various nervous and mental conditions encountered in daily practice. Potency, although it is the first essential cannot be taken as a standard by which to judge a remedy of this class. Danger either of immediate evil effect or habit-forming too often accompanies this quality. The sphere of usefulness of such remedies is limited to cases which are under the constant supervision of the physician or trained attendant. It is essential to have a safe sedative-hypnotic for the vast majority of cases. Such a remedy must be free from habit-forming drugs and dangerous heart depressants. On the other hand it must possess sufficient potency to relieve all nervous manifestations and highly excited mental states not absolutely requiring the administration of an opiate. It must be a remedy in which dependence can be placed not only as to positive therapeutic effect, but also as to freedom from deleterious results.

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of taking an alkali of some sort in these medical and surgical states which in your judgement need it, before and after operations, etc.

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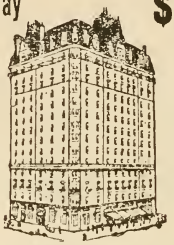

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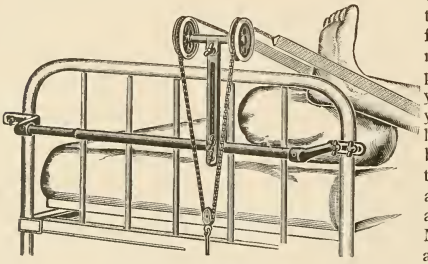

Double Pulley Extension Co., Kinsley, Kans.

Patented, $10 for information and proof that anyone is using a double pulley for tension other than ours.

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The Efficient Spinal Supporter.

It is the opinion of a large majority of the medical profession that in cases of spinal curvature, no matter how caused or of what nature, a spinal supporter or brace is indicated.

The efficient spinal suporter should be so constructed as to elongate the spine, for all admit that the only way to straighten a crooked spine is to extend it, to separate the individual vertebras and allow as little pressure as possible on the intervertebral cartilages and the roots of the spinal nerves. It should exert a gentle but constant life between the hips, the torso and the axillary folds, thus removing the weight of the upper portion of the body from the spine, transferring it to the hips.

The efficient supporter should be light in weight and comfortable to wear, so that the patient's general health will not be affected by weight or undue pressure anywhere. It should be adjustable that advantage may be taken of improvement in the patient's condition and easily removable to permit of examination and to facilitate bathing, massage and medication.

While giving proper longitudinal support, the efficient supporter should be flexible to allow of movement and exercise sufficient to prevent wasting or atrophy of the muscles.

Plaster of paris casts, sole-leather jackets and steel braces will, in many cases, bring about satisfactory results, but the shortcomings of this rigid form of support are apparent to the modern practitioner. A heavy and rigid aparatus, through the discomfort it brings the patient, meets with opposition from all parties concerned and is often discarded before being worn a sufficient length of time to demonstrate whatever merit it may possess.

Many cases of spinal irritation and general neuresthenia, without actual spinal curve, need a spinal supporter. Most of these patients will welcome a light and comfortable apparatus but find great difficulty in wearing the cast, jacket or brace frequently ordered by Orthopaedists.

In cases of anterior polio-myelitis, a muscle grafting is or is not done, support of the spine is indicated and should be advised at a very early period.

In cases of spinal tuberculosis, it is especially necessary to remove the weight of the upper portion of the body from the vertebras, and a comfortable, efficient appliance is indicated.

On another page in this issue appears the advertisement of the Sheldon Appliance, which we believe is the most practical and efficient spinal supporter on the market. This Appliance is made by the Philo Burt Manufacturing Company at Jamestown, N. Y.

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Each Tablespoonful Contains;

50 per cent. Best Grade Cod Liver Oil
1/40 grain Iodide Arsenic
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The next annual meeting of the North Carolina Medical Society will be held in Asheville, N. C., on the third Tuesday of next April.

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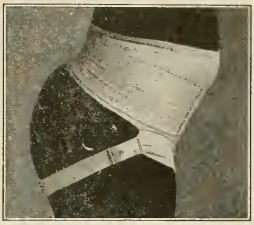

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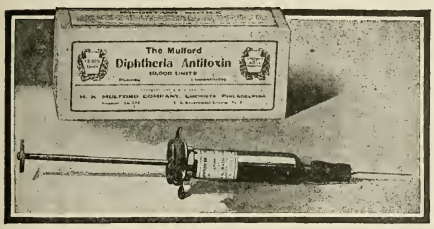

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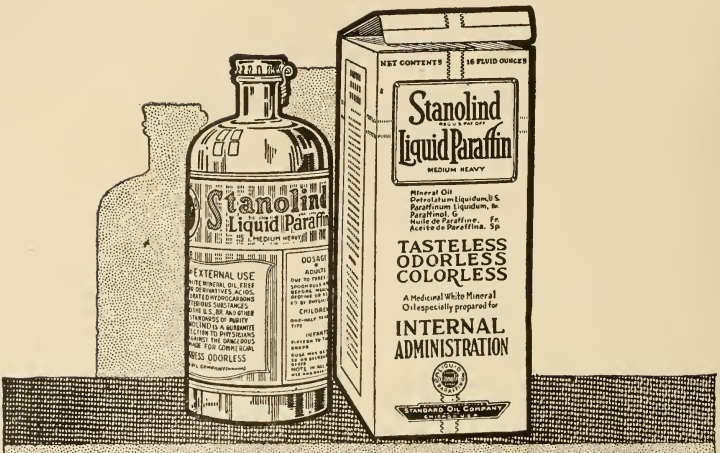

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Dr. Charles Wardell Stiles, Wilmington, N. C.

The Charlotte Medical Journal

VOL. LXXIV CHARLOTTE, N. C., OCTOBER, 1916. No. 4

CHARLES WADDELL STILES, A.M., M. S., M. D., PH. D., LL. D.

Edited by Drs. D. W. and Ernest S. Bullock, Wilmington, N. C.

Dr. Stiles was born at Spring Valley, N. Y., May 15, 1867. His father was Rev. Samuel Martin Stiles and his mother was Elizabeth White (Stiles). Charles Stiles' mother spent part of her girlhood days in North Carolina, and he has spent many of his most fruitful working years within that State.

His education began in the public schools of Hartford, and was continued at Wesleyan University (Conn. 1885-86), College de France (Paris, 1886-7), Berlin University (Germany, 1887-9), Leipsic University (Germany, 1889-90), Trieste Zoological Station (1891) and the Pasteur Institute and College de France (1891). During this time his more American proclivities were nurtured, for he played center rush in foot ball; was a baseball pitcher, and al ong distance runner. He is a member of the Alpha Delta Phi, Phi Beta Kappa, Kai Gar, and Theta Nu Epsilon Fraternities. As the result of his studies he was made a Master of Arts and a Doctor of Philosophy by the Leipsic University. Later he was the recipient of the following honorary degrees: M. D. (Paris, 1895), M. S. (1896); D. Sc. (1906, Wesleyan University; LL. D., University of North Carolina (1912); M. D., Richmond, Va., Medical College (1913); D. Sc., Yale (1915).

Dr. Stiles is a member of the New Hanover Medical Society, the North Carolina Medical Society, Pee Dee Medical Society, Medical Society of the District of Columbia, Texas State Medical Association, the Academie de Medicin (Paris); the Royal Academy of Italy ,and many other scientific associations.

The subject of this sketch is by temperament and training a Medical Zoologist, and his researches in this domain have been conducted at home and in many foreign lands. Among his activities may be mentioned the following: Zoologist, 1891-1892 Bureau of Animal Industry, United States Department of Agriculture; Professor of Medical Zoology United States Public Health and Marine Hospital Service since 1902; Professor Medical Zoology Georgetown University 1902-1906; Special Lecturer on same, Army Medical School 1896-1902; Navy Medical School since 1902; John Hopkins University since 1896; Honorary Custodian Helminthological Collection United States National Museum since 1893; Secretary Advisory Commission Smithsonian Table at Naples Zoological Station since 1894; United States Zoological delegate International Zoological Congresses, Leydon 1895; Cambridge 1898, Berlin 1901, Berne 1904, Boston 1907, Gratz 1910, Monaco 1913, member since 1895, and Secretary since 1898, International Commission on Zoological Nomenclature; Secretary 1910-1915 of the Rockefeller Commission for the eradication of hookworm diseases; elected 1892 successor to Joseph Leidy as Foreign Correspondent, Societe Biologie, France; elected 1896 foreign correspondent Academie de Medicine; 1899 corresponding member Zoological Society, London. Author of A Revision of the Adult Cestodes of Cattle, Sheep and Allied Animals, 1893; Tapeworms of Poultry 1896; the Inspection of Meats for Animal Parasites, 1898; Sheep Scab, Its Nature and Treatment, 1898; Internal Parasites in the Fur Seal 1899; Trichinoss in Germany, 1901; Index Catalogue of Medical and Veterinary Zoology, 1902 (continuing pub.). The Cattle Ticks (Ixodoidea) of the United States, 1902; Emergency Report on Srra, 1902; Report on Hookworm Diseases (Uncinariasis) in the United States 1903; Illustrated Keys of Trematoda and Cestode Parasites of Man; also many reports and papers on Medical Zoology too numerous to mention.

Dr. Stiles is most widely known for his discovery of the American Hookworm and deserves much praise for the patience with which he has stood the affront of ignorance and the years of ceaseless toil that were required for him to produce sufficient proof to make all men admit that which he himself knew so well. His investigations were conducted personally in the homes of the sufferers, and his intimacy with the victims ,was such that he learned the psychology of the "Southern poor," their poverty, which is learned only at first hand, and touched by the sight of starving babies sucking withered breasts, he induced John D. Rockefeller, Sr., to contribute a million dollars for the eradication of hookworm in the South. The campaign against hookworm was carried out on a grand scale with marvel-

ous economy and efficiency. The work was co-ordinated with the State and county boards of health in such a manner as to insure harmony and minimize friction. Through the results of this work the South reclaimed thousands upon thousands of its sons and daughters —once the victims of disease, now healthy and more efficient. This saving of a people was done by a man who slept in the bed and at the table with the "poor-bocker," and found that the apathy and poverty were due to sickness; convinced the country of its cause, and then obtained a means by which he could be cured. That is what this man did. God bless him for it.

Dr. Stiles is at present chief of the division of Zoology in the Hygienic Laboratory United States Public Health Service with his headquarters alternating between Washington, D. C., and Wilmington, N. C. He claims Wilmington, N. C., as his legal residence.

In 1897 he was married to Miss Virginia Baker and his domestic life has been made happier by two children. He is on the "under side" of fifty, enthusiastic, vigorous, with potential powers for future service even greater than he has already rendered.

TRANSFUSION.

By W. T. Parrott, M. D., Kinston, N. C.

For a long time infusion was thought to be of equal value to transfusion and combined with the fact that hypodermoclysis and proteclysis were both simple they were generally preferred. In severe hemorrhage, however, this is not true. In my experience transfusion has been limited to severe hemorrhage.

In pernicious aenemia, uremia, carcinoma and a few other conditions, I have no experience and little confidence. Still in a patient exsanguinated, I am enthusiastic over the results of a transfusion, and I find that it is decidedly superior to salt solution given in this manner.

First new blood is furnished and while the salt solution is capable of increasing the blood pressure, still its effect is more transient and not near so lasting as transfusion.

Then again, the quick stimulating and nourishing effect of the new blood is decidedly more marked. The fact is, a transfusion will in this group of cases save a great many lives which will be lost with salt solution.

For the past five years I have experimented considerably with many methods and have limited myself to three. While most of the experiments have been conducted on the dog, still I think the conclusions are sufficiently accurate to apply them in practice. The Crile method: My objections to this are as follows: I am hardly ever able to complete the technique with sufficient alacrity to make it desirable in emergency work. Secondly, the direct end to end anastamosis of the artery of the donor with the vein of the recipient is not without danger of increased infection.

The Percy (indirect method) is less objectionable in those two particulars, although the coating of so large a tube with parafin is difficult and the formation of thrombi on any portion of uncoated table is probable. The modified method of Fountleroy seems to approach more closely the coveted conditions. It is simple, inexpensive and can be prepared by any one other than a glass blower.

Any method selected (and now there are scores of them and each possessing some merit) should be thoroughly and carefully tried out on the dog before being used on the patient. I believe with Mayo that if more dog work was done conditions would be better for the dog Surely an undesirable element of the canine population would be noticeably decreased by one's first few transfusions.

In the Fountleroy method, instead of the curved glass tubes with flnged extremities, I prefer a straight tube tapered at the ends with a circular ring about one centimeter from the terminus. The tubes should at all times be ready if transfusion is to be of value. Keeping them immersed in alcohol appears to be all that is necessary. The use of a wide constrictor (the armlet of any blood pressure apparatus will answer) is necessary to insure a good flow from the donor. My favorite vein is the median basilic and this is exposed for one inch.

The method of Rous and Turner as published in the Journal of the A. M. A. for June, 1915, is a quick and satisfactory method of determining the danger of hemolysis. In regard to the use of sodium citrate, my experience is that it decreases the coagulability of the blood within the body as well as in the tube I am fully aware that this observation is not in accord with the theory of some others, but it has been my experience whenever sodium citrate is used and I have employed it by hypodermoclysis, orally and intravenously. Always with the same result. An ordinary salvarsan tube may be used for this and it requires very little more time for the operation. I do not consider hirudin or the proteoses so valuable as the citrate. The first is sometimes toxic and the latter is difficul

of sterilization.

The following cases are given to show the value of sodium citrate as a preliminary measure in transfusions:

Case 1—The Donor. The donor, age 45; height 5 feet, 8 inches; weighs 165 pounds. Given two gms. citrate soda in 64 cc. sterile water through the needle at 10:45 a. m. The median basilic vein was opened and 16 cc. blood withdrawn just before the citrate was given. A beginning clot was observed in 30 seconds. Half hour after the citrate was given (through needle) another specimen of blood was taken (16 cc. under identical conditions) and no clot was observed to occur until two minutes and 45 seconds had elapsed. In the two specimens the clots were not of equal size or firmness until more than three hours.

Case 2—Donor. Donor given 32 gms. citrate solution by mouth two hours before transfusion begun. Previous to and following the citrate solution 16 cc. blood withdrawn and comparison made. In the first specimen (before soda given) a beginning coagulation was observed in 20 seconds. An hour after the second specimen (after the citrate given) showed no clot for five minutes. After an hour more the second specimen showed a softer clot than the first one.

Case 3—The Donor. In this transfusion sodium citrate given four hours before the operation (as we anticipated) and by mouth. An apothecary ounce was administered. Before the citrate was taken 32 cc. blood was examined. It showed an almost immediate clot. After the operation the clot did not occur for several minutes but we kept no accurate time on account of being too busy with the patient. I regret not being able to carry these observations further but one has little time to spare in a blood transfusion.

THE PRESENT DAY MANAGEMENT OF TYPHOID FEVER AND ITS COMPLICATIONS.

By J. G. Busby, Spencer, N. C.

This paper will not enter into a discussion of the merits or importance of typhoid vaccination. This question has been settled in the minds of practically all medical men, and it may not be an exaggeration to say that it stands today as the greatest monument to preventive medicine of the past quarter of a century. If the work of vaccination is pursued with the same intensive zeal in the future as it has been in the past few years some of us will doubtless live to see the day when typhoid fever will no longer exist. But for some time to come we will be called upon to treat this disease, less frequently perhaps each year, but it will be well to keep in mind its proper treatment in the light of more recent advances upon the subject. It will, therefore, be the purpose of this paper to present the newest thought upon the management of typhoid fever and its complications, not exhaustively but in a simple, practical way, together with the writer's personal experience.

In approaching every typhoid case let us bear in mind that we are dealing with a disease not of days but of weeks, and that the patient and the family look forward with apprehension to a tedious, long drawn-out confinement. It is therefore, the first duty of the thoughtful physician to allay this apprehension and inspire in both a feeling of confidence and trust. He must adapt himself and show a personal interest in the patient's comfort. This leads, then, to the selection of the sick room and proper facilities for nursing.

The sick room should be the largest, the best ventilated, the best lighted, and above all the quietest and the most cheerful room in the house. It should contain, if possible, two beds—one to be used during the day, the other at night. A competent, experienced medical nurse should be placed in charge—two nurses, a day nurse and a night nurse if circumstances will permit. She should be well versed in the general care of a fever patient such as the control of temperature by proper sponging and bathing, the necessary care of the mouth, the careful precautions in regard to excreta, the preparation of suitable diet, and the most important of all she should know how and when to look for complications and danger signals. We have laid special emphasis upon the fact that she should be experienced in fever nursing. She may be a good surgical nurse, she may be a good general nurse and yet be miserably deficient both by reason of training and temperament when it comes to the management of a typhoid patient. It is unnecessary to add that all directions to the nurse should be given in writing.

The question of the sick room and the nurse is too often looked upon as a matter of routine, carelessly and indifferently, but not until these two essentials are looked after properly can we hope to carry out the intelligent, careful treatment the patient deserves and the case demands.

There is no drug or combination of drugs with which I am familiar that will

*Read before the Rowan County Medical Society.

lighten or shorten an attack of typhoid fever or prevent its complications. From time to time numerous drugs have been brought forward by zealous advocates which we shall not take the time to mention. Briefly, I may state with reference to vaccination that it has been thoroughly tested out in a large number of cases and after the fever once begins it does not influence to any degree the course of the disease nor lessen the frequency of complications.

The question of diet has always very properly been considered one of unusual importance. More than any other factor in the management of typhoid the subject of diet has been discussed and threshed out and analyzed. There were those who employed only sweet milk throughout the entire course. Others placed the ban on sweet milk and used only buttermilk. And so the pendulum has been swinging back and forth until in more recent years with a better and more scientific knowledge of food values we have become more liberal and more generous. The diet of a typhoid patient should be mixed, containing carbo-hydrates and sugar in good amounts, proteids in small amounts. The old milk diet does not meet these requirements. The following in uncomplicated cases might be suggested: Sweet milk either plain or boiled, with or without lime water, raw eggs with sherry or lemon juice, broths or soups, beef tea, cereals cooked for at least three hours, malted milk, cocoa, ice cream, fruit juices and plenty of pure water. Feedings should be given at two or three hour intervals and during the latter weeks two or three times during the night. It has for some years been demonstrated that the typhoid patient should not be starved, and that he does better on a liberal diet unless there are some serious complications.

The question of purgatives has been pretty well settled. The intestinal canal should be thoroughly cleansed preferably with calomel and salines at the outset of the attack, after which no further purgatives are given, the bowel being moved every second day where constipation is present by simple enemata. Where the purgation is thorough at the outset the annoying and often severe pain of the early stage due to the absorption of toxins is greatly lessened.

With regard to intestinal antiseptics there is a variance of opinion. I have never satisfied myself of their value. value. Among those whose confidence in this class of medication is still unshaken salol and urotropin perhaps have the strongest adherents. Urotropin in typhoid, if I remember correctly, was first used in Thayer's clinic at Johns' Hopkins and is still used although not with the same enthusiasm. More recent experiments with this drug have shown it to be valuable only as a urinary antiseptic. Ascetozone so much in vogue eight or ten years ago has been practically discarded.

The control of temperature and restlessness by hydrotherapy is so well understood both by physicians and competent nurses that we shall not take the time to discuss this subject in detail. Antipyretic drugs are rarely indicated. Quinine is probably the best in a malarial section like ours. The point that we would most strongly emphasize is that the average uncomplicated typhoid case does not require promiscuous drugging. It is in many cases positively harmful and imposes upon the patient a needless expense. But a certain percentage of our cases, in spite of every precaution and care, are going to develop complications often serious, not infrequently fatal. In the management of these cases active drugs have a well defined place and are often of positive value. We shall, therefore, for the purpose of convenience and clearness, discuss these complications under five headings: First, tympanites, (2) toxemia, (3) circulatory failure, (4) intestinal hemorrhage, (5) perforation.

Most writers classify tympanites as a symptom. This may be true up to a certain degree, but those of us who have seen this condition in its worst form are forced to the conclusion that we are justified in classing it as a complication. Meteorism is always to be viewed with alarm and in the severe form always indicates extreme toxemia and possibly intestinal paralysis. Its proper management is prophylactic—it should be treated while it is mild, in other words before it begins. In can be prevented best by a proper regulation or modification of the diet, and by measures directed toward the underlying toxemia. It will be found best to discontinue milk entirely for a few days and restrict all feeding as much as the case will justify. In extreme cases absolute withdrawal of all food for twelve to twenty-four hours some times brings relief. Turpentine has long been the remedy par excellence in this condition used either internally, by rectal enemeta or in the form of the old fashioned stupe. The latter used properly has given me the best results. Turpentine used by mouth has been a decided disappointment. Carminatives such as cinnamon, cardamon, peppermint and wintergreen have proven worthless. In the ob-

stinate cases the use of the rectal tube is perhaps the most effectual means of giving temporary relief. Where there is a rapid return of the distention the tube may be left in place for considerable periods. Esserin some few years ago had a number of enthusiastic advocates on account of its direct stimulating action on the walls of the intestines. Recently we have heard little of it. Before passing from the subject of tympanites let us impress upon ourselves the urgent necessity of meeting promptly and cautiously this condition because it paves the way for hemorrhage, perforation and heart failure and always means a dangerous toxemia.

The treatment of typhoid toxemia is discouraging. So far as my own experience goes there are only two things of value. One is the drinking of large quantities of water, the other normal salt solution. The nurse should be instructed to give water freely day and night and if this is refused it is justifiable in extreme cases to use the stomach tube. Saline solution can be given either under the skin, by rectum or by the drop method. This latter method has proven of decided value in my work not only in the toxemia of typhoid but in the toxemias of other acute diseases.

If the typhoid patient is properly managed from the outset the heart action is usually not rapid and the pulse tension will be good for the first two weeks and will not require artificial assistance. Not infrequently a case can be safely carried throughout the entire course without the use of stimulants—especially is this true in children. The routine use of cardiac stimulants is to be condemned. The most abused and over used drug today is strychnine. It is now a well proven fact that it does not raise the blood pressure in serious illness even in large and frequent doses, therefore, in acute heart failure large doses should not be given. If there is much restlessness, nervous irritability, or cerebral excitement strychnine is certainly contraindicated. All of us have seen patients suffering from insomnia and pronounced nervous symptoms and muscular twitching from the over use of strychnine who upon its withdrawal showed marked improvement. When then is strychnine indicated in typhoid fever? Where we have a tendency to stupor with sluggish nerve centers, the so called typhoid state and when the pulse tension flags from lack of tone in the muscular contractions of the heart in the third and fourth week it is doubtless the drug of choice. It is rarely advisable to give more than one-thirtieth of a grain every six hours. Alcohol once the sheet anchor in heart weakness holds no place in modern medicine and today is considered a food, not a medicine. Camphor and caffiene are at times of value when used with discrimination. Digitalis or better digitalin hypo. is indicated when other measures have failed and the patient's condition is growing worse. Adrenalin is not used as much as formerly. Pituitary extract has been substituted by many and is less transient in its effect. Hydrotherapy and an ice cap over the heart have a stimulating effect. Salt solution is of little value in heart failure except that it aids in promoting the elimination of toxins.

Hemorrhage while always looked upon with anxiety and alarm is not always serious. We have three methods of controlling it. First, by quieting peristalsis; secondly, giving medicine by mouth with the idea of it reaching the bleeding ulcers and promoting coagulation by its direct effect. These drugs we class as hemostatics. Thirdly, giving by mouth or subcutaneously drugs which increase the coagulability of the blood. For quieting peristalsis as well as the apprehension of the patient nothing acts better than an 1-8 gr. morphine with 1-150 gr. atropine. All food should be stopped for 24 hours, water and crushed ice are allowed sparingly. A draw sheet should be used and the patient should not be lifted on the bed pan or urinal. Hydrotherapy should be discontinued, a large ice cap not too heavy should be used over the abdomen, the foot of the bed should be raised in severe cases and artificial heat applied to the extremities. Hemostatics are of very doubtful value. There are some practitioners of the older school who still use iron, lead, hydrastis and adrenalin. Among the drugs supposed to increase coagulability calcium either as the chlorid or lactate has been used most extensively. It is given in 20 to 40 gr. doses every four hours. I have given calcium a thorough trial in a fairly large number of hemorrhage cases and have not been impressed with its value. The same applies to gelatine. One thing should be remembered in hemorrhage not to adopt measures which are more heroic than wise. In profuse hemorrhage a certain degree of collapse is to be expected and this by lowering the blood pressure often promotes clotting. During the active stage of hemorrhage saline infusion is theoretically contraindicated but in severe collapse one should not hesitate to employ it.

Perforation is the most dreaded and the most dangerous of all typhoid com-

plications. Where marked tympanites and hemorrhage are present we should be constantly on the lookout for signs and symptoms of perforation, and the nurse should be carefully instructed as to what these are. The treatment is surgical and the diagnosis must be made promptly if we are to expect anything from operative measures. Under the old plan of medical treatment practically every case was fatal. Today 20 to 40 per cent. of our cases of perforation can be saved by the competent abdominal surgeon provided the diagnosis is not too long delayed. It is usually best not to attempt the removal of the patient to the hospital unless one is conveniently at hand. The only excuse for not operating on every case of typhoid perforation would be the absolute refusal on the part of the patient or his family. Should such permission be flatly refused it is best to relieve the pain and quiet the peristalsis with an opiate and apply an ice cap over the abdomen in the hope that by some lucky accident the perforation may be closed by the omentum or mesentery. I have known this to happen in one case.

A few words about convalescence. The convalescent patient who has been on the diet outlined does not show the emaciation and loss of weight we used to see when the patient was either starved or kept on a milk diet. The patient should not be allowed to sit up until his cardiac strength has returned—a very safe rule is not to sit up until the blood pressure is above 100. Iron and hydrochlo. acid are indicated unless they have been given during the course of the disease. The patient should return to a normal diet very cautiously and gradually.

Let me emphasize again in closing our grave responsibility in every typhoid case. It is essentially a disease that exacts its toll from among the young and the most useful—those missed most in every community. The saddest experiences of my 12 years of practice have come to me in the typhoid room. We do not always receive a fee commensurate with the service rendered but the patient and family who do not for years carry with them a proper sense of obligation and appreciation and gratitude are woefully lacking in the finer feeling of attachment that should always exist between the patient and the conscientious physician.

RESECTION OF (PART OF) INFERIOR MAXILLA; REPORT OF CASE.

By Dr. M. J. Payne, Staunton, Va.

The occurrence of necrosis and new growths (tumors) furnish the indication for the resection of the lower jaw. Temporary resection of the inferior maxilla is undertaken whenever it is desired to render more accessible the floor of the mouth, the base of the tongue, pharynx and the base of the brain. Whenever the temporary resection or division of the bone is employed, the completion of the operation includes the suitable fastening of the bone ends. Whenever a part of the inferior maxilla is resected—the separated parts or the bone ends must be held in a fixed position so that the teeth remaining (if any) are in articulation, with the corresponding teeth of the upper jaw. Some device must be employed to fix the remaining and separated parts of the bone in a proper and correct position. This is required in all cases, whether the operation, for the removal of the bone, is undertaken through the mouth, or by the external incision. You will find external splints, with bandages, the internal or interdental splints, unsatisfactory, unsafe and inefficient.

If it is possible to preserve sound teeth, one is sufficient for each fragment, then the use of a suitably contrived bridge brace properly placed serves an excellent purpose, and for this work a skilled dental surgeon is essential. Should it be required to sacrifice all of the teeth of the lower jaw, I would have a metal plate made by the dental surgeon and fix it in place with screws. An angular screw driver is essential, but easily made. (Wire has been employed by forcing the ends of the wire into the cut ends of the bone. The latter is insecure fixation).

I am well assured that in cases of necrosis of the lower jaw, and especially whenever teeth are still present in the necrosed area, or when there is an opening or a communication from the necrosed bone into the mouth, the safer, the proper procedure is the sub-periosteal removal of bone through mouth. I am aware that this is contrary to the teachings of practically every operative surgery. There can be no logical surgical reason for making the disfiguring external incision in cases that may be easily and successfully dealt with through the mouth.

The external operation should be reserved and undertaken for the removal of tumors, or whenever extensive resection of the bone is required and bone

ransplantation is contemplated. I am onvinced that the cosmetic and functional results obtained by the intra-oral oute are better. The operation as practiced through the mouth is not difficult nd hemorrhage is not embarrassing.

The periostium should be preserved, nless there is a positive indication for ts removal. It is well to remember, however, that one should never refuse to undertake to excise the mandible widely vhen necessary.

The lower jaw is very resistant to infection, regenerates rapidly, and strongly, mportant functions are well cared for by ature. The important bones of the body re well supplied with nutrition. The inferior jaw is remarkable in its resistance o infection—tolerating foreign bodies vell, and will regenerate in the presence f infection and metal plates, and infection and bone transplants.

The technic of the sub-periosteal resection of a part of the lower jaw from within the mouth as employed in this case was careful preparatory treatment, ether, the mouth gag, provision to prevent blood escaping into the trachea, extraction of teeth. Then an incision through the mucous membrane and periosteum to the bone. Careful separation of periosteum from the bone, division of bone in front, elevation of diseased fragment, and further and complete separation of periosteum and excision of diseased bone—followed by disinfection of cavity and drying with alcohol and packing with iodoform gauze.

H. B. McKinney, Covington, Va., 42, white male, married, clerk, 5 feet 10½ in., 140 lbs. Family history negative. Personal history, struck by baseball (professional), 15 years ago. Bad teeth for many years.

History of illness December 31st, 1914. Sudden sharp pain in jaw, very tender and rapid swelling. One week later a small incision was made externally, no pus. The infection commenced about the first left molar.

January 23, 1915. Examination confirmed above. Also bone tender and some pus discharging into the mouth. None through the external wound. Well marked mitral—Insufficiency. Large amount of albumin in the urine. Elevated temperature, marked pallor and general weakness. The man was septic. January 23rd, 1915 (same day) was admitted to hospital, put to bed and was given Murphy drips and suitable food. By January 29th he had improved sufficiently to warrant undertaking the subperiosteal resection of the left side of the body of the inferior jaw, extending from just in front of the second molar to the left lateral incisor. This case was referred to me by Dr. A. Hume Sprinkel, of Staunton, Va., who assisted at the time of the operation and furnishes the dental discussion of the case.

Discussion by Dr. Sprinkle.

The first molar was extracted early in January. The left lower cuspid and bicuspid teeth extracted at time of operation. The third molar having been extracted several years ago.

Before operation for removal of necrosed bone in case described by Dr. Payne, an impression of the lower teeth with adjacent parts was taken in plaster of Paris, into which was poured a low fusing metal giving a metal model upon which to construct a splint. The operation anticiapted the removal of all teeth in left side of jaw from the second molar to the left lower lateral incisor. A gold jacket was constructed which covered the lower incisors and right lower cuspid, also a gold jacket for remaining molar on left side. These were put into place in the metal model and a twelve guage gold and platinum wire soldered to connect the two jackets, making one continuous and rigid piece, the gold wire bridging the space to be operated on.

This appliance was cemented in place on the second day after operation and held the excised extremities of bone in exact relative position, and so securely that patient used the appliance successfully for mastication.

Note: February 16, 1916.—Has now a bridge filling in the defect caused by loss of teeth, and is in good health. The size and contour of the new bone is almost that of the original. Ossification had not occurred fully when the last plate was taken May 2nd, 1915. I have not had an X-ray plate since then. I had hoped to have the case here in person.

AN INTERESTING EXPERIENCE WITH PITUITRIN.

By Albert D. Parrott, M. D., Kinston, N. C.

Posterior pituitary extract owes its physiologic action to its autocoid (either hormone, or chalone) derivatives, and to the neural composition of the gland itself. A substance containing phosphorus is derived from the posterior pituitary body. This is the infundibular harmone, or chalone, according as it excites, or inhibits cellular activity in other glands. There is a purely chemical theory that the physiological action of pituitary extract is due to its phosphorus content is no longer tenable. Yet the chemical action of this autocoid (either harmone, or chalone) must depend upon this phosphorus content. This phosphorus molecule probably possesses a universal affinity or chemotaxis. It probably differs from all other autocoids in that it may attract or repel every other autocoid. To say the least it is one of the most interesting, most active, most valuable, and most dangerous of all therapeutic agents that we are permitted to use. It has several most interesting actions upon the human body, but when the name "Pituitrin" is called we naturally think of its powerful influence upon gravid uterus. The purpose of this paper is not a discussion of the substance "Pituitrin" but to cite a most interesting experience with it. In March, 1914, I was called by Mrs. S. C., in labor. She was 27 years old, mother of five children, health excellent, weight 190 lbs. Never had any trouble in past labors. She said her smallest child at birth weighed seven and one-half pounds. When I reached her home, I found labor progressing nicely, pains rhythmical, hard, bearing-down in character, os almost completely dilated, and showing left Occipito-Anterior position. I thought this labor would be terminated within two hours at most. After about half hour more hard labor the pains gradually diminished in strength, and frequency, and finally almost stopped. At this juncture she asked me to please give her something to hurry up the pains, as other doctors always did when her pains began to wane. I introduced my finger again and found the os completely dilated. I then gave her one ampule of Parke Davis & Co.'s, Pituitrin 1 cc. Almost immediately the pains returned, and never in my life have I seen such pains, the severity of which was truly something fierce. They were simply terrible. It seemed to be almost one continuous excruciating pain. They were so severe that I feared the uterus might be ruptured.

Instead of the child being hurled out, as if propelled from a catapult, it only stuck the faster. These terrible pains continued about one hour without any abatement, when I decided to try a heavy dose of morphine. I had read that neither morphine nor chloroform, would relax womb under the influence, or stimulus of Pituitrin, but nevertheless something had to be done. So I forthwith gave her morphine 1-2 gr. hypodermically, and waited 30 minutes without getting any relaxing effect whatsoever upon the uter-

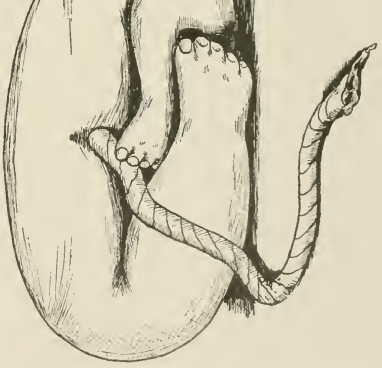
rus. I then chloroformed her to the surgical stage of anesthesia. She stopped groaning of ocurse, but the uterus continued contracting violently. I then put on high forceps, and tried to deliver. I worked hard for 20 minutes, and could not budge the child. I then laid down on the bed to rest and try to devise some plan to successfully deliver her. I had about decided to call a consultant, but got up and examined her again, and to my great surprise found that the head had passed under the arch of the pubis, and was impinging against the perineum. I now coned my hand and gradually pushed it alongside the child until it entered the womb (for the womb was contracting rhythmically now) and found that with every contraction the womb narrowed centrally like a dumb-bell, or very much like hour-glass contraction before the secundines are delivered. This central-segment contraction was indeed powerful, even now, almost hurt my hand. Finally after much tugging, and hard work I succeeded in delivering a 12-pound boy baby which was still-born. Around his waist at level of umbilicus was a bruised, bluish girdle completely encircling his body, showing that he had been subjected to powerful squeezing, and this was the cause of his death. The membranes were delivered without any difficulty. The patient was in good condition as circumstances would permit, she was shocked but little, she received no perineal, or cervical laceration. She convalesced splendidly, with nothing unusual happening, until the 5th day, when her husband called me saying that his wife's urine was continually flowing from her, keeping her wet, excoriating her external genitalia, and thighs, and otherwise causing great discomfort. Upon examination, I found a vesico-vaginal fistula about the size of a quarter of a dollar. This was subsequently closed by operation. This woman has since that time enjoyed the very best of health, but has not been pregnant since. The most interesting phase of this condition to my mind is whether this was brought about by the action of Pituitrin, or would it have happened anyway? It was a long time before I gave any more Pituitrin, and even now I give it reluctantly, in reduced dosage, with great caution, and many misgivings.

HEMI-EMBRYO POSTERIOR. REPORT OF A CASE.*

By Louis H. Webb, M. D., Chapel Hill, N .C.

On the morning of March 22nd, 1915, I was called to deliver Mrs. C. T., colored. She is thirty-five years of age and this is seventh confinement. I had been called in to see her two weeks prior to this, she was at that time suffering from edema of the lower extremities, some pain in the back and abdomen. She stated to me that she had been in bad health all during her pregnancy. I delivered of her a normal girl child weighing eight pounds, following the placenta, which was attached by a small cord to another mass that I could palpate in the abdomen and I supposed to be a twin. It came in a separate sac and upon opening the sac I found the monster which consisted of two lower extremities and a pelvis. The mother had a severe post-partum hemorrhage. The recovery from labor was uneventful. The patient is the mother of seven normal children. Father is forty-nine years of age, in good health and denies venereal infection. No family history of monsters or twin from either father or mother. I could find no report of any such cases in this country and I thought a report of this case might be of interest to members of this society. Up to the present time, however, there have been collected in Europe reports of one hundred and twenty-five such cases. H. V. Wilson says he knows of no such instances in mammals. There are instances of such monsters occurring in frogs and salamanders. They

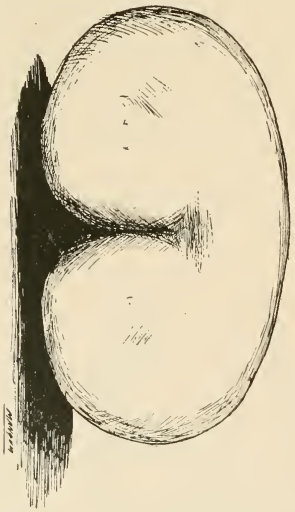
*Read before the North Carolina Medical Society, Durham, N. C., April 19, 1916.



are called by the zoologists hemi-embryoes posterior and I have adapted this term to the human.

Histology.

The specimen consists of two lower extremities and a pelvis. These are approximately of normal size of the corresponding parts of an average full term foetus. The thighs are semi-flexed as also are the legs. The feet are inverted. On the right foot are five stubby toes. On the left foot are four stubby toes, the one corresponding to the great toe being double as though it and the second toe had fused. The whole specimen is edematous. The skin apparently normal. There is a slight cleft between the buttocks but there is no sign of an anus. A small globular mass about seven millimeters in diameter represents the rudimentary genitals. The umbilical cord is attached about one inch in front of the genitals, and immediately above the pubis. The hips, knees and ankles permit slight movement but the tense skin prevents anything like the normal range.



An incision (U shaped) beginning on the front of the thigh a little above the knee was carried over the top of the pelvis to a corresponding point on the opposite side. Through this a dissection of the thigh and pelvis was made. The thighs seem to consist merely of edematous fibrous tissue and a small amount of fat, the latter being restricted to a sheat about one centimeter thick immediately about the femur. The pelvis shows no evidence of the existence of any of the normal organs, but appears to be filled with same edematous connective tissue that constitutes the bulk of the thighs. The vessels from the umbilical cord separate just beneath the skin and pass outward to the thighs. In this dissection the sacrum and the whole ring of the pelvis are exposed and appear to be normally formed. There are no vertebrae above the sacrum. Pieces of tissue were taken from the thighs and from pelvis and umbilical cord for microscopical examination. The examination of the pelvic contents and the tissues from the thighs show nothing but fat and a fairly well developed mucous connective tissue. For about four inches above from its attachment to the body the cord is covered with normal skin, beyond this point it is covered with the remnant of the allanties. The contents of the cord are normal. As it was desired to preserve the specimen without undue mutilation no microscopical examination of the rudimentary genitals was made.

Causes.

I will take up the causes from two standpoints; first, from the standpoint of monsters in general and second, from the standpoint of the monster I am reporting.

First. Causes of Monsters in general. From the light of recent investigations on the causation of montrosities, it is quite certain that external agencies have much to do with their formation. I mean by external causes that are external to the ovum itself. Heredity has undoubtful influence as we see monsters in several generations in succession.

Internal or Germinal Causes; i. e. causes within the ovum itself are not so well understood. The sperm or male element has some influence in the production of monsters as shown by the work of Bardeen, who saw deformed ova result from the fertilization by sperm which had been exposed to the X-ray.

External causes; injury to the abdomen or uterus, not violent to destroy foetus or ovum, disease of the chorion, the amnion, abnormal implantation of the ovum as in tubal pregnancy, arrest of development as a result of chemical, physical and thermic action, changes in the ovum during the blastula stage. Lithium, sodium, potassium and magnesium have a selective action on the cells of the morula stage and produce monsters, some affecting the nervous system and others the heart. In fifty per cent. of their cases Stockard and Lewis produced clycopean monsters from eggs of the minnow by subjecting them to a solution of magnesium sulphate. It has been suggested by Hert-

wig that certain chemical poisons circulating in the blood of the mother may affect the embryo and cause monsters. In the old days people used to think that the mental state of the mother caused monsters but of course no intelligent person believes that now. Good observers claim, however, that shock, worry, deprivation, etc., may produce the endometrium, nutritional and vascular disturbances which may affect the growth of the embryo. The role of syphilis in the production of monsters cannot be too strongly emphasized. I have within the last two years seen in my practise one exencephalus monster and one craniorhaaschischlisis monster which were delivered from syphilitic mothers. Mall believes that amniotic adhesions that were formerly held responsible for many single monsters are usually secondary rather than primary.

Causes from the stand-point of the monster reported.

Of course all general causes are to be considered also. Rux about 1880 pricking frog eggs in the blastomere stage, killing first cell after the development of egg had started. In some of his experiments he killed the cells which normally formed the head end of the embryo, result posterior abnormality developed. Thus we first had hemi-embryo posterior experimentaly produced. Rather likely this embryo began to develop and that the head end subsequently degenerated, in the early stage blastocyst for instance. The posterior growth without the head isn't surprising because human embryoes certainly resemble lower forms in their physiological behavior as well as in their anatomy and plenty of lower forms will live without the head end and even regenerate others do not but live for a time. It seems then that from some cause the head end of this embryo degenerated at an early stage and died but that the posterior end growed and developed.

I am deeply indebted to Dr. J. B. Bullitt for the histology report and Dr. H. V. Wilson for suggestions as to cause.

"ADENOIDS IN CHILDREN."*

By C. N. Peeler, M. D., Charlotte, N. C.

In presenting this paper I do not hope to bring forward any new ideas, but to clearly bring before you this subject in its true light. The old adage, "An ounce of prevention is worth a pound of cure," aptly applies to the care of children, and when parents more carefully look after the health of their children, I am sure a stronger race of men and women will be developed.

To my mind adenoids in children is the most neglected thing that seriously affects child-hood. By adenoids I mean the collection of lymphatic tissue located in the vault of the pharynx. This pharyngeal tissue has been minutely described by the German Anatomist, Luschka, and is sometimes called "Luschka's Bursa or Tonsil." This pharyngeal tonsil, or adenoid vegetation, becomes of interest and importance in its enlarged condition: 1st, for the obstruction it offers to nasal breathing; 2nd, from the disturbance it may cause in the ear by pressure in the region of the Eustachian tube or office of opening, causing progressive deafness; 3rd, from the changes brought about in the irregular development of the alveolar arches and the displacement of the teeth; and 4th, from the causative relation it bears to various diseases in the nose, larynx, lungs and inpoverished blood and cerebro-spinal system.

The child who has adenoids in a marked degree presents a facial expression which is in a measure pathognomonic. The little one goes about with its mouth open, more or less, with a dull countenance, the eyes are heavy and stupid, the external nose may be small, the upper lip thick and prominent, the palatal arch usually high, narrow and V shaped, and the incisor teeth protruding forward. This picture we find varing from these symptoms in a small degree to those of extreme cases.

Nasal breathing through the day may be only slightly impeded, but at night the adenoids become congested as soon as the child assumes the recumbent position and the little one is forced to sleep with its mouth open. In such cases we often find a peculiar quality of the voice in which there is a decided lack of resonance. The attacks of ear-ache and impaired hearing, and occasional nose bleeding are common symptoms. Purulent discharge from the nostrils often causes excoriation and eczema of the upper lip. Hacking cough, asthmatic attacks, enuresis, "pigeon breast," are a few of the results of oral breathing, ninety per cent. of which is caused by adenoids. Likewise a large proportion of adult deafness is produced from the same cause. These cases are usually incurable. Had the adenoids been removed in childhood these deaf persons might be enjoying to the fullest the sense of hearing. Middle ear abscesses are nearly always caused by inflamed adenoids.

In a personal examination of more

*Read before the Mecklenburg County Medical Society.

than one thousand school children decayed teeth are nearly always associated with mouth breathing, whether there is any relation between the two conditions I am not prepared to say.

From a Physiological standpoint the diffuse lymphoid tissue is found more or less in the stratum muscularis mucosa of all mucous membranes. This normal lymphoid tissue is composed of a reticulum of fibrous tissue, which contains lymph cells, blood vessels, lymphatic vessels and a few nerves. The lymphatic vessels are connected with the lymphatic circulation at the base of the brain above and with the tonsils (Waldeyr's ring) and cervical chain below. The function of this diffuse lymphoid tissue is to prevent either the virus or the toxins entering these lymphatic vessels, and also it is claimed that these lymphoid cells throw off a secretion upon the surface of the mucous membranes, which has some germicidal action. LaFayette Page calls attention to intoxications arising from diseased conditions in the nose and pharynx. Schwalbe and Retzius have demonstrated the connection of the lymphatic vessels of the nasal mucous membranes and those of the cranial cavity. They also state that the mental dulness in children is brought about by the lymphatic and venous stasis of the nasal mucous membranes extending to those of the cranal cavity. It is now admitted by recent investigators to be more than probable that the virus of poliomyelitis, cerebro-spinal meningitis, small-pox, scarlet fever and measles is taken up by the lymphatics of naso-pharynx. It is reasonable to assume, knowing the above, that the child's naso-pharynx should be kept in a normal physiological condition.

From the Pathological standpoint Kryle has divided adenoid tissue into four varities: 1st, a soft, diffuse, friable mass composed mostly of lymphatic tissue and covered with a thin layer of epithleium; 2nd, edematous or cyanotis form in which the gland tissues are increased, the enlargement resulting from venous stasis and edema. This feature is apt to occur in children affected by some intestinal derangement, or circulatory disturbance. 3rd, a hard variety in which there is increase both of fibrous tissue and lymphatic elements. 4th, a hard form which is caused by repeated attacks of acute or sub-acute inflamation, which bring on hypertrophy and later followed by contraction. This variety is usually secondary to intra-nasal disease.

The treatment of pharyngeal tonsils, of course, is surgical. The prognosis is good providing the condition is recognized early and the adenoids thoroughly removed. If allowed to remain with the hope of atrophy before or at the time of puberty, the associated derangements, especially of the ear, arched palate and "pigeon breast" are hard to overcome.

By the removal of adenoids from a child it is often remarkable to see the results. The child who was cross and dull in school learns with the same intelligence perhaps as other children. His hearing improves, he is no longer a nervous, irritable individual, but often becomes one of the most obedient pupils that the instructor has. I have in mind at present a child of eight, whose adenoids were removed three months ago, and only last week the mother reported to me that from an unmanageable one requiring frequent use of the switch, her little girl had changed to an obedient child and was ever anxious to do something that would please her mother. Children who play "hooky" in school are often affected with adenoids, and of course their removal is indicated.

Now just a word as to the results of mouth breathing upon the child. The air is not filtered of its dust and bacteria in going through the mouth, and thus the child becomes more liable to infection. The air is also not moistened nearly so much passing through the mouth as by passing through the nose, consequently the mucous membranes of the traches, bronchi and the alveoli of the lungs become dry, thereby furnishing a fertile field for the growth of bacteria of different kinds that are found in the air. This dryness prevents, also, proper interchanges of gases to and from the blood and the result is an anemic condition, and this renders the child an easy victim of any of the infective diseases. This impoverished blood has a far reaching effect upon the growth, both physical and mental, of the individual and of his usefulness and longevity in life.

A CONSERVATIVE USE OF GALVANISM IN GYNECOLOGY.*

By Dr. J. H. Hiden, Pungoteague, Va.

If this subject had been presented a few years ago when there was considerable antagonism between gynecological surgeons and physicians of the old school, your reply would probably have been that the conservative use of galvanism in gynecology consists in its omission altogether. Such contempt for this thera-

*Read before the Richmond meeting of the Tri-State Medical Association of North Carolina South Carolina and Virginia.

peutic agent is the natural result—the inevitable reaction of a too hasty professional enthusiasm. When electro-therapeutics was in its infancy and Apostoli announced some brilliant successes in gynecology by the use of galvanism, his reports were received with eager anticipations. Thousands of physicians soon bought electric batteries, and with little or no knowledge of either the science of gynecology or of the use of electricity these adventurers assumed the responsibilities of professional gynecologists. With crude instruments in their hands, and with little or no skill in diagnosing pelvic disorders, who could expect anything from their work but failure and disappointment? Now add to this state of professional ignorance that deplorable habit of using electricity with no definite conceptions in view, and often trusting for success to the possible action of some vague psychological impression upon the patient, and you have before you abundant reasons for failure. Indeed, when we follow the history of galvanism in gynecology, it seems that it was used largely by that class of physicians and enthusiasts who were looking for some magic way of healing the afflictions of women without the carefully studied, laborious methods of accurately adjusting scientific measures to definite, specific conditions. And here it may be said that even surgeons of note who used for a while the crude instruments of two or three decades ago, finally abandoned the use of galvanism for what they regarded more preferable measures in their gynecological work. And this course is not surprising, when we consider how much they had expected from the use of galvanism—such work as really belonged to only surgery itself, namely, the cure of uterine fibroids, cystic tumors, ectopic pregnancies, various sorts of indeterminate pelvic masses, carcinomas, etc. Indeed, their field for galvanism was entirely too broad and their methods were too empirical to insure success. And though these surgeons, by their superior training and experience in diagnosing pelvic disorders were far better prepared than the average physician to intelligently use galvanism in this line of work, yet their first series of extreme disappointments seems to have destroyed the taste for further work of this character. In other words, the accomplished surgeon wanted to be what he considered a real surgeon, and not a mere meddler with "empirical measures." Moreover, the usual reports from the use of galvanism, obtained from the most reliable sources, gave little or no encouragement for its continuation in the field of gynecology. With this history before us we are not surprised to see galvanism in this field often relegated to the empiric and the quack. It has been followed, however, by no more gloomy an out-look than has often followed some of the most brilliant operative procedures in the domain of surgery, and especially that of Cesarean section. When we think of how often, since the days of Julius Cæsar, this operation came to the front and as suddenly fell into disrepute only to repeat the process again and again, as surgical skill and technique improved, we need not wonder at any sort of a turn in the revolution of the great wheel of medical science. The truth is there is a general law in the study of medicine that almost any therapeutical agent which, in the hands of careful, discriminating observers, is capable of accomplishing much, is almost sure to be valueless, and at times even dangerous, in the hands o fthe ignorant empiric and the quack. And this law can be very aptly applied to the use of galvanism in the field of gynecology.

I. My use of galvanism in gynecology, has been confined to rather narrow limits, and within these limits I wish to discuss this subject mostly from my own personal experience. And this field for galvanism consists of simple pelvic congestions and conditions of more or less relaxation of abdominal and pelvic tissues—such conditions as favor menorrhagia, metorrhagia, uterine retroversion, prolapsus and acquired visceroptosis—in a word, the beginning of such conditions, that if not soon corrected, are almost sure to need more radical measures from the hands of the expert surgeon. When any of these conditions are complicated with morbid structural changes, as uterine fibroids, cystic growths, large pus tubes, carcinomas, or with any of the pelvic organs bound down by firmly organized adhesions, these cases belong to the surgeon, and not to the so-called conservative physician. Galvanism applied to these only invites failure and is often dangerous. If this feature of the subject could be fully realized and conscientiously put into practice, it would do much toward eliminating the surgeons antagonism to this restricted use of galvanism in the field of gynecology. And it may be said here that this restricted field is abundantly wide for great usefulness when we can successfully treat these simple pelvic congestions and menstrual disorders without infringing upon the vast number of septic and varied pathological conditions which properly belong to the

surgeon alone. But in order to properly make these necessary discriminations several things should be carefully considered.

(a) In the first place **we must be quite sure of our patient's condition,** and this, of course, requires considerable knowledge, practice and skill in the art of examining a woman's pelvis. If after an examination we find that in addition to the supposed congestion or disordered menstruation we have ugly septic conditions, morbid growths or some indeterminate pelvic mass, the case should be rejected for treatment, and at once sent to the expert surgeon. Indeed, it should ever be borne in mind that the undertaking of such cases would not only bring our work into disrepute, but would be a violation of our moral obligation to the confiding patient.

(b) Again, in treating cases of relaxed pelvic tissues with more or less congestion we should always consider whether or not the case before us is too far advanced in regard to a visceroptosis for any permanent relief by our measures, and if it would not be wiser to reject the case in favor of surgery? This question has often given me no little concern; but a solution can usually be found, if we can only satisfy ourselves that we have no other complications than those which belong to these relaxed conditions. If upon examination we find uterine prolapsus or uterine retroversion or both, as is often the case, no electric treatment should be given until the uterus is properly replaced. When a retroverted uterus is properly replaced a tampon should usually be inserted into the vagina, after each treatment to hold the uterus in position until it is time for a second treatment so as not to lose any of the value of the constricting influence upon the relaxed pelvic tissues. The patient should also remain in bed for several hours after each treatment, and then, when allowed to sit up, should be cautioned not to do any kind of household work.

II. Now let us refer to our instrument and our knowledge of it. (a) In the first place it is very imperative that it should be a first class, "up to date" instrument —one containing an accurately adjusted milliamperemeter and a current controller, that we may know exactly what we are doing. The old method of being guided by the number of cells used is often misleading and empirical. Indeed, the number of cells required in a treatment to produce any given number of milliamperes, granting that they are of standard strength, depends upon the condition in which you prepare your patient for the treatment, the thickness of the abdominal wall and the resistance of the adjacent structures.

(b) Again, in familiarizing ourselves with our instrument we should continually bear in mind a comprehensive view of the physiological action of the two poles—the positive with its acid, heat-carrying, sedative, antiseptic influence and its vaso constricting properties is diametrically opposite to the action of the negative pole, which is alkaline, irritating and congestive. It is evident that a condition which would be benefited by the action of the positive pole would be almost certainly aggravated by that of the negative pole. This degree of knowledge is very primitive, but let us advance a step further: if the action of these poles is diametrically different, then it becomes of very great importance to know just where the "point of indifference" should fall, that is, the point at which the action of the positive pole ends and that of the negative begins. For if we make no calculation for this "point of indifference" we may give the action of the negative pole just where we desire that of the positive, or we may give today a treatment with the action of the positive pole, and upon our next treatment give that of the negative, undoing all that we have accomplished by the first treatment. Such a course is doubtless the cause of many failures. Now in treating patients who have very thin abdominal walls when we desire the action of the positive pole throughout the internal pelvic structures we should use little or no heat, and but little alkalinity to the negative electrode which covers the pelvic wall, while increasing the intensity of the heat in the solution used in the vagina from the positive electrode. A disregard of this procedure may allow the action of the negative pole to enter some part of the delicate pelvic structures, carrying with it its congestive, irritating, alkaline properties, especially suited not only to aggravate the existing morbid conditions, but also to favor the development of any possible latent infection.

(c) Again, in using galvanism in these simple congestions and relaxed conditions I always prefer the cataphorical method, using Neiswanger's vaginal electrades with a weak solution of the sulphate of copper. Each treatment consumes from ten to twenty minutes, and from twenty-five to eighty milliamperes are given at a treatment. These treatments are usually given on alternate days. It is sufficient to say that the results from such treatments have been

almost uniformly good, and most gratifying.

Report of Cases.

Case 1. Mrs. K., amultipara, aged 33; an invalid for several months, and had been treated at intervals by another physician for about a year. When called to her I found her confined to her bed, almost prostrated with a severe menorrhagia which would appear every two weeks, lasting about ten days each time and threatening exsanguination. Examination revealed marked tympanites with obstinate constipation and simple pelvic congestion with muscular tissue relaxation. The patient was put upon laxative doses of salts, a tonic of iron arsenic and strychnine, followed with four treatments of electrolysis with the copper solution. Improvement was rapid, and within a month the patient was a new creature. Constipation was relieved, the distended abdomen returned to its normal size and shape, aenemia was relieved and the sensitive pelvic tissures had become toughened and comfortable, menstruation appeared monthly and was normal and the patient grew hungry, fat and happy. Moreover, upon inquiry a few days ago I was informed by her brother-in-law that she is now enjoying most excellent health, and has been in excellent health ever since the above treatments about five years ago.

Case 2. Mrs. B., a multipara, 40 years of age, had been in bad health for several years during which time but little relief had been given by her physicians; was pale, aenemic, nervous and suffered with insomnia. Examination revealed more or less chronic pelvic congestion, uterine prolapse and very marked abdominal muscular relaxation. Ten treatments, followed with an abdominal supporter between each treatment and for months afterwards, were followed with excellent results. The abdomen soon became more contracted, firmer and more comfortable, the uterus was better supported within the pelvis, the appetite improved, insomnia and nervousness disappeared, color was restored to her face, and the patient was soon able to do household work. At present, about three years since this treatment was given, the patient still seems to enjoy good health, and is doing her household work.

Case 3. Mrs. H., a very delicate woman, 38 years of age, mother of two children, has a history of pelvic inflammation following the birth of her second child about 17 years ago. Complicating this condition she had developed a large pus tube upon the left side for which a laparotomy was soon performed. Though apparently benefited by the operation it was nevertheless followed with various pelvic troubles of the neuralgic type, and at intervals very severe spells of menorrhagia. Up to the time she sought my aid she had been operated upon five times by skilled surgeons, and was now a suffering invalid, confined to bed and weeping in despair. An examination revealed slight pelvic congestion, relaxed pelvic tissues, uterine retroversion with tendency toward prolapse with an irritable bladder. Treatment consisted in washing out the bladder, replacing the uterus, giving a few saline laxatives and diuretics, followed with four catapharical treatments at intervals of three days apart. The improvement was rapid, marked and gratifying. Within about three weeks I found her visiting one of her neighbors, and with great delight she met me with extravagant thanks for the relief which she had received.

Case 4. Mrs. M., a young married woman of high social life; 22 years o fage, primipara, and had been operated upon for appendicitis about four years ago. She had come to our community from a distance about six weeks after confinement, being referred to me for treatment by her family physician. Her improvement after her confinement was so slow and her inability to walk with any comfort so marked that her husband anxiously sought my aid and advice. Examination revealed simple pelvic congestion, and abdominal and pelvic muscular relaxation, uterine retroversion anr some prolapse. Treatment consisted in replacing the uterus, giving Blaud's tablets of iron, nuxvomica and cascara, and six cataphorical treatments. Improvement was very rapid and gratifying. The sensitiveness left the pelvis, the abdominal walls contracted, the uterus was much better supported in the pelvis, color was restored to her face, the appetite greatly increased, and the patient was soon able to walk with agility and comfort—in a word, from all appearance she returned home within two weeks a well woman. Moreover, reports, since her return, from her grateful husband have only confirmed this view of the case.

These four cases are only representative examples from a considerable number so treated who have been either symptomatically cured or greatly helped by the use of galvanism in such cases of pelvic disorders, and from such experiences and observations I would say that galvanism in the use of gynecology, practiced by the empiric and the quack is dangerous, and should only be condemned; but used with discrimination by a care-

ful, conscientious observer, and a man fairly skilled in the examination and diagnosis of pelvic disorders, it may be used as a preventive measure, and as a great blessing to many of the suffering women of our land.

"INTESTINAL STASIS."*

By Fred M. Hodges, M. D., Richmond, Va.

The causes, effects and treatment of Intestinal Stasis are certainly some of the oldest problems of medical science, and yet probably the least understood. Many papers in every language have covered every phase of the subject; discussing the etiology, pathology, differential diagnosis, treatment and study of the condition with the X-ray. Practically, every known malady has been attributed to the toxemia of Intestinal Stasis.

The etiology of constipation: We know that a very small percentage of individuals are constipated from childhood. The large majority however, date back to a period in life when the inclination to go to the toilet has been ignored, either from timidity, the rush of life, or laziness. Sedentary habits associated with the strain of business life, frequently is a cause. Too much medication by the patient himself may bring on constipation. If for any reason the bowels move several times a day, bismuth or paregoric is taken, then in a day or two, a laxative, and again a sedative. Some patients will tell you that they have taken practically every laxative you ever heard of, and many proprietary and patent remedies that you never heard of.

Rigid dieting over a long period where a patient is told not to eat fruit, but to take large quanities of milk and eggs, can bring on habitual constipation. The theories of congenitally thin muscularis celi, or malposition of the colon certainly are not borne out by the facts, in but rare instances. As to the toxemia of Intestinal Stasis very little is actually known; whether it is due to (1) subinfection, (2) products of disintegration of food stuffs in bacterial activity, (3) the products of disintegration of food stuffs in the digestive juices, (4) the heteroproteose discharged by the intestinal mucosa, or any of the many theories advanced, we do not know.

The majority of all cases coming under the observation of the internist, are advanced and may probably be defined as (1) stasis with various nervous manifestations (2) intestinal stasis with beginning cardio-vascular changes.

The first group consist largely of neurasthenics of various degrees; depressive neuroses, melancholia and at times, mild insanity. Here besides constipation, which of course, is the chief complaint, they are usually malnourished, neurotic, weak, and show poor circulation, as low B. P., cold hands and feet etc. Some have a sallow, greenish complexion, the urine usually shows indican and at times, acetone, especially where there is an insufficiency of the ileo-cecal valve.

We know that some persons can have marked stasis for years without any ill effects. Reliable men have reported instances of patients who had only twelve movements a year (one a month) for years without any ill effects whatsoever. These cases are, of course, extremely rare, and are no more of an argument against the ill effects of chronic stasis, than the fact that some men use alcohol to an excess for years and live to be more than 80 years old, is an argument against the ill effects of chronic alcoholism.

Einhorn and Dunin believe that in neurotic patients the nervous manifestations are primary and constipation secondary. In this type of individuals, sedatives will frequently relieve the constipation.

In the second group, if the patient is seen before there are any changes in the heart, arteries and kidneys, they usually complain of a feeling of fullness in the abdomen, a bad taste in the mouth, headache, dizziness, and an inability to concentrate their minds upon their work. Many do not consult a physician for the constipation alone, and when seen by a physician, present all the ordinary findings of cardio-vescular-renal disease.

It has been very interesting to me to note the large number of cases of high blood pressure, marked hypertrophy of the heart, and evidences of contracted kidney, in patients who have never had anything except constipation. Some show moderate vascular schlerosis; many, very little schlerosis.

Treatment.

At one time the treatment was almost entirely medical, then dietetic; then in many instances, surgical; Now, a combination of some or all of these methods, with a systematic and common sense way of living, is employed. Due to the large percentage of individuals who are chronically constipated, practically every form of treatment has been carried out, and sufficient time has elapsed to justify definite opinions as to their real value.

Unless the history or examination dis-

*Read before the Tri-State Medical Association of the Carolinas and Virginia, Richmond, Va., February 16 and 17, 1916.

closes the probability of organic obstruction, as tumor in or pressing upon the intestine, bands of adhesion, kinkink of the intestines, stricture following ulcer, hemorrhoids, fissure, ovarian, uterine or prostatic disease, or reflex trouble, due to chronic infection, as appendicitis, all cases should be given thorough medicinal, dietetic and hygienic therapy, before surgery is considered. In case there is absolutely no indication of organic trouble, this should be done before X-ray and other special examinations are made, for in many instances, we can obtain good physiologic results where we would not expect it from the interpretation of these examinations. The patient should be assured that the condition can be relieved, but that it will probably take several weeks for the bowels to move regularly, without medication. The entire treatment should be written out in detail, explained, and given to the patient.

Diet.

This consists of plenty of water, bulky foods, fruit and cereals containing a great deal of organic acids, and cellulose which are not digested. The diet has to be suited largely to the individual case; salads may give especially good results in one person; spinach and string beans, in another. Oranges may be all that is necessary in one patient, while apples, grapes, figs or prunes may suit another, similarly effected.

I have one patient who has been chronically constipated for years, but for the past few months has been entirely relieved of this by taking a cup of hot chocolate every evening before retiring.

Hygiene.

The two most important hygienic measures are (1) the habit of going to stool at a certain time every day (2) physical exercise. Exercise is of great importance, except in markedly myasthenic cases. Many rest cure cases are in reality, instances of chronic constipation with laziness, and would be far better off if they were made to work. Hospitals for nervous diseases have many such patients, on account of the fact, that we as physicians, pay so little attention to the little details of treatment which make it possible for sanitaria to obtain results we do not get. It is entirely too easy to write a prescription for two carthartic pills, followed by a saline, and let it go at that. Exercise, if possible, should also be a diversion, and should bring all the abdominal muscles into play. Tennis, swimming, rowing, gymnasium, horseback riding and special exercises at home are beneficial. Massage is of value in a few cases, but will not take the place of exercise. Hydropathy, when properly used, is of value in selected cases, but is one of the most abused methods of therapy known to medicine.

Electricity may be of value, but I have seen it used in a great many cases, and have never seen it give the results claimed by many.

Medicinal.

A stomach analysis should be made in severe cases. When we know that hyperacidity exists, an alkali with the other treatment is an advantage. Constipation does, at times, occur in patients with hypoacidity, and here acid should be given.

During the first week, give enough medicine to make the bowels move any way. If the patient takes several doses of medicine, and then is obliged to take an enema, it is very discouraging to them. In the severe forms, an enema of 6-8 ounces of olive oil or liquid paraffin in the evening will usually cause a thorough clearing out of the colon the following morning. Here a saline enema may be used every other day, especially if there is much acidosis.

During the usual treatment for marked constipation, a mercurial (preferably blue-mass in 5-8 grain doses) should be given every week or ten days. Agar combined with cascara or phenolphthalein 3 per cent. given twice a day in 1-2 dram doses, is one of the best laxatives we have for prolonged usage. One great advantage of these preparations is that the remedy in the agar does not come out quickly from the agar substance, but is absorbed slowly through osmosis, and in this way covers a large area of the intestines.

After using these preparations for two or three weeks, plain agar in table spoon doses should be gradually substituted. In anemic neurasthenic women, Blaud's pills with cascara taken in conjunction with plain agar offers the best results.

Liquid paraffin gives good results as long as the drug is used. In spastic constipation, caused by inflamatory conditions accompanying chronic stasis, olive oil and paraffin seem to give the best results. I have had very little experience with suppositories, except in cases of rectal irritation. This treatment is highly recommended where the rectum is not entirely emptied at the time of defecation. Every patient should be told that drugs are to be eliminated as soon as possible.

Some rare cases not cured by the treatment above outlined, may be dependent on or intensified by adventitious bands,

pelvic adhesions, stricture or spasm. These may be detected by the proper examination under the fluoroscope, and in women, by a pelvic examination.

The X-ray will show insufficiency of the ileo-cecal valve, and the fluoroscope will enable us to palpate the ileo-cecal junction to an advantage. Occasionally, tenderness will be found during the examination, when the ordinary examination was negative. In these cases, a removal of the appendix has greatly facilitated the treatment for stasis. At operation these appendices would probably come under Codman's classification of "chronic appendix" showing nothing more than partial obliteration, stricture, enteroliths etc.

The plainly surgical cases are not as frequent as were once supposed, but their recognition is very important, not only because medical treatment is valueless, but especially for the reason that we may bring on acute obstruction, or may be playing with an early carcinoma. A good percentage of cases of toxemia considered to be intestinal in origin, show insufficiency of the ileo-cecal valve.

Surgeons, Rontgenologists and internists disagree entirely as to the value of this finding as an etiological factor in intestinal toxemia; some consider it of great importance; others, of no importance whatsoever. We have had several cases of severe toxemia with marked insufficiency where medical treatment was a failure, until this valve was made competent by operation.

In a few cases, the valve itself was repaired, but in the majority, the appendix which showed but little, if any disease, was removed, and nothing was done to the valve. All of these were very much benefitted, and the X-ray, later showed competent valves. If we were justified in leaving the appendix in these cases and only repairing the valve, the value of this operation could be determined. Probably, removal of the appendix is all that is necessary, and in a degree explains the good results which frequently follow the removal of a seemingly normal appendix.

Some surgeons have reported good results from removal of the appendix in cases of stasis in the terminal ileum which seemed to be due to spasm of the ileo-cecal valve. The appendix seems to have a very variable influence over this sphincter, just as it has over the pylorus.

Other patients showing insufficiency were relieved without surgery. If the physiology of the ileum and colon are considered, it seems perfectly plausible that regurgitation of material from the colon into the ileum would cause trouble. The contents of the ileum are acid, those of the colon, alkali. Putrifactive bacteria and putrifaction are normal in the colon and not supposed to occur in the ileum.

If we knew all about the physiology of the small intestines, we could explain these things far better, but as Cushing once said "we have started at both ends of the small intestine, but we know nothing about the middle."

To summarize briefly: Whether intestinal stasis is a primary or secondary condition, that is, whether it is the cause of the various nervous and metabolic disturbances that occur, or the effects of these, is not definitely known, but we do know that a vicious circle is formed, and that the treatment is the same. The chief causes of constipation are sedantary habits; improper diet; drugs, and ignoring the desire to go to stool.

Not nearly so much surgery is being done for the relief of stasis as was being done a few years ago, but we should not in any way minimize the importance of X-ray, pelvic and rectal examinations, and of the great value of relieving surgical conditions when found.

If history and examination are entirely negative to any organic trouble, thorough medicinal, dietetic and hygienic therapy should be instituted. The different measures should be thoroughly explained to the patient and the most important ones, emphasized.

Drugs are to be used as little as possible, but for the first two or three weeks, blue-mass once a week with agar and cascara offers the best result, in the majority of cases.

In order to treat constipation successfully, we must do so by a proper diet capable of being well assimilated. We must in the same way supply proper bulk moisture, and fat to put the material in an easily movable condition; this is best done by a reasonably mixed diet with an excess of water, juicy fruit, fat, and at times, such food as bran bread, shredded wheat etc.

I believe that the above with regular habits in going to stool and proper exercise, will cure, at least, 90 per cent. of our cases of Intestinal Stasis.

"BORDERLAND CASES OF INSANITY, GENERAL PRACTITIONER'S OBLIGATION."

By G. F. Douglas, M. D., First Assistant Physician East Mississippi Insane Hospital.

By G. F. Douglas, M. D., ETC.—8 pt.

In presenting this paper, it is not with the specific purpose of telling you something that you don't know, nor with the intention of revealing some scientific discovery, but with the motive of calling your attention to some salient facts that you, as general practitioners, have to face and grapple with almost daily; that is, seeing, deliberating and ultimate decision with your "borderland" cases of insanity.

In using this nomenclature, I do it advisedly, as the strict definition given by Meyer, of the cases that come under this category is "Any case that can be benefited by hospital treatment." The object of this paper is to discuss a few of these cases which are first seen by the general practitioner. You will infer from the definition above mentioned, which was formulated by Dr. Meyer, that these cases are necessarily first seen and treated, or sent to some hospital or sanitarium for treatment by the general practitioner.

One of the first conditions that I wish to mention is the drug psychoses that are seen, one of the most prevalent is that due to morphinism, and cocainism. I make mention, not with the presumption that these cases may soon be amicably handled, but with the hope of our possibly giving them a little more thought and consideration.

Let us conisder first that morphinism and cocainism are diseases, and should be treated as such. There is that inherent, constant desire on the part of the body for something, which cannot be satisfied by scarcely anything other than morphine or cocain (being determined by the drug that the patient is in the habit of taking). If we grant that this is a disease, then what shall be our remedial procedures? Shall we try to relieve the habituae without offering any treatment to satisfy the craving of the body cells? To do so works rather a hardship on the patient than any great benefit. The great majority of these cases are more satisfactorily treated in hospitals than at home, (please know that I am not making aplea to have them all sent to the insane hospitals for treatment, for these institutions have been flooded) but this particular point is to be determined by the patient's physician, the majority of whom are general practitioners.

This prologue on morphinism and cocainism is given here for the purpose of leading up to the psychoses, which results from the continued use of the drug, with the plea for the general practitioner to treat the habituae early in the disease, or insist and persist on his going to some institution where he, or she, may be treated prior to the psychoses that follows the long continued use of the drugs in almost every case. We all know that the results in treating the majority of these habituaes are very unsatisfactory, and they are much more so in the long standing cases.

The things above stated in regard to morphinism and cocainism have been said with appreciation of the fact that it is much easier to advise or suggest in many cases than it is to treat and get the desired results, but this is offered purely for the purpose of preventing or restoring of the psychoses that may follow the continued use of the drug without treatment.

There are afew other drug pschoses that might be mentioned here which could be prevented or cured if results were thought of, or conditions seen early; one o fthe most prevalent of these is the toxic psychoses seen following the long continued use of hypnotics to produce sleep. Patients will often consult their physician, stating that they are unable to sleep, and ask him to give them something for this symptom, (but classed as a disease by the patient) and possibly stating that they are lying awake at night probably not sleeping more than four or five hours. This may be true, but many of those who make these complaints are sleeping a great deal more than they think, and it is often the case that they are suffering with a neurasthenia from overwork, or may have had financial reverses, or worrying over family differences, or one of the many hundred of things that could serve as an etiological factor of sufficient gravity to produce insomnia. The doctor will often-times write a prescription calling for one, or two, or the "triple bromides," with possibly a little chloral added; but one of the most popular prescriptions for this trouble, not only written by the physician, but bought from the druggist without a prescription, is Bromidia, which is a bromide preparation.

The patient will take the above prescription as prescribed, for some time, then he or she, will not get the desired results from the dose prescribed by the physician, and will begin increasing the dose, or cutting the length of time or in-

*Read before meeting of the Laudredale County Medical Society June 9, 1916, Meridian, Mississippi.

terval between doses. This soon fails to suffice. Possibly the prescription refilled indefinitely.

The constant accumulation of the drug or hypnotic gradually numbs, drowns or submerges the intellectual power of the patient, this condition causing maniacal delusions, ultimately taking "color" of that of a toxic mania.

The greatest thing under consideration here is the point of being scrupously careful in the prescribing of hypnotic drugs in cases where there is an underlying cause for insomnia. Will say here that there are one or more in nearly every case, if we are onl yable to find them. The plea offered for these cases is for the every protection that the physician can throw around the patient in safeguarding him from these psychoses. The end results in many of these cases are favorable if given proper treatment in time. (Just here I will say that the treatment is largely eliminative). I remember very vividly two cases of toxic mania, one caused from taking bromidia, and the other from taking bromo-selzer and capudine. Within due time both of these cases recovered, but if they could have been advised and kept from these drugs, they and their people might have been kept from a great deal of mental anxiety. These cases could oftentimes be treated and prevented having to be committed to an insane hospital were they seen and recognized in time; furthermore their chances for a permanent recovery are many more where treatment is instituted in the early stages of the attack.

Drugs are very beneficial, and are the therapeutist's weapon in the treatment of diseases, but we are often too prone to prescribe for symptoms and not the disease per se, as results of which we mask our symptoms, or poison our patient, and I am afraid consign our patients' bodies to terra firma. The latter statement does not apply to the general practitioner alone, but to all.

The eatter paragraph was a diversion from the main topic, but my object in view is to insist on the general practitioner making an effort in the early stages of these psychoses to remove the cause, and by so doing will possibly annihilate the effects. If they don't think they can benefit the patient, or don't care to deal with him, it is beter to try o get him to a hospial somewhere, that he may be given early treatment for the mental aberration present; to do this early adds greatly to the chances for the patient's permanent recovery.

As I have gone rather into details in a few drug psychoses above mentioned, I would not have you think that these are the only borderland cases of insanity the general practitioner has to deal with, which requires his skill and tact in handling in a manner that is for the best interest of the patient.

Let us consider briefly the acute manias that we have to deal with. The majority of these are first seen by the family physician, who in most instances are general practitioners.

These cases are usually, first, very talkative, have dilusions of grandeur, and in general very much exaggerated. The first though is to quiet the patient. In some cases they can be qiueted very easily, others are more difficult, a few can't be at all. To eliminate the drug psychoses, probably one of the next most prepotent factors in the case is auto-toxemia, or auto-intoxication. When these cases are first seen, let's give the removal of the cause first consideration and not the suppression of the symptoms, as to do so, will only accomplish a temporary result, for later there will almost inevitably be an outburst of the symptoms, which will necessitate the commitment of the patient to a private or public institution for treatment.

The course of procedure with the hopes of an early recovery are similar to those in drug psychoses; that is, the early treatment at home, or in an institution. One of these adds greatly to the chances of an early and permanent recovery.

After mentioning acute manias, I feel it almost imperative at this point to mention its antitheses; acue melancholia. From the standpoint of protection to the patient and relative, and those who are thrown in contact with the patient, the melancholiac is much more harmful. While the maniac has many delustions, makes numerous threats, offers himself for personal combats, etc., all usually openly, and without any feeling or sense of concealing his actions; on the other hand, the melancholiac is depressed, low spirited, feels that the whole world is against him, persecuting him, etc., often acknowledges his feelings to the effect that the Lord has directed him to kill himself, or some of his people. Unless the latter patient is watched very closely, he will do (as he expresses it) "What the Lord has directed him to do," by killing himself, or some one else.

Hence in considering these borderland cases of insanity, acute manias and acute melancholias, remember that the latter is the more dangerous to be out of confinement, or from under surveillance or supervision, especially to himself. In considering these cases ,they should be treated as early as possible, either at home, or in some institution.

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TENTH ANNUAL MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

The tenth annual session of the Southern Medical Association will convene in Atlanta, Ga., Monday, November 13, and continue during the three following days. This splendid medical organization now ranks second in numbers of national medical societies, and in enthusiasm of its membership and high grade of papers presented at the meetings, it stands surpassed by none and equaled by few, if any. Attracting a membership from sixteen States, natural selection to a more or less extent provides it shall have the best and a glance at the usually well assorted program shows the names of the leaders in medicine, surgery, public health, and the other specialties, ready and willingly contributing time and energy in making the annual gatherings of more than average interest. Atlanta, long known as the gateway of the South, is a beautiful and progressive city with a number of attractive hostelries amply capacitated to provide comfortable domicile for the couple of thousand Aesculapians likely to be in attendance.

Besides a program of papers, elaborate and diversified in their topics and bearing names calculated to entitled them to be recognized as authoritative, this session will be specially noteworthy for the extensive clinical feature which is to be made specially prominent. Beginning at 8 a. m. clinics of two hours will be held daily during the sessions by leading teachers from other States, and on the two last days of the week, Friday and Saturday (November 17 and 18), all day long clinics will be conducted by Atlanta doctors. The clinical features of the meeting alone will amply repay the busy doctor who essays the trip.

Determined to make the occasion one long to be remembered by the visiting guests, Atlantans ,in true spirit of noble Southern hospitality, have arranged to provide most complete facilities for the entertainment of its many distinguished visitors. However it is the expressed policy of the Association not to permit social diversions to disturb the business features which have made the society so forceful a factor in the development of Southern medicine and surgery. The "Georgia Barbecue," scheduled for Wednesday, November 15, at Stone Mountain, will be a noteworthy feature in entertaining. The great Auditorium of which Atlanta is so justly proud will provide not only accommodations for the various section meetings, but will house all commercial exhibits as well, and is readily accessible from all the hotels. Reduced railway fares have been granted, and every possible arrangement made to render the occasion one of the most notable gatherings of medical men ever held in their fair land of the South.

J. H. W.

"THE MINERAL ACIDS."

How shall we determine when to give an acid, or an alkalai, in stomach troubles? Acids given before meals, relieve acidity of the stomach due to hypersecretion of acid. They do so by diminishing the sensibility of the secretory apparatus of the stomach, against the administration of food—the natural stimulus of this secretion. But all cases of acidity are not due to hypersecretion of acid; paradoxical as such statement may appear; many of such cases are due to too little acid. A definite amount of the normal acid secretion is necessary, if the albuminous constituents of the food require it. If the acid is not present in sufficient quantity, other changes than those of digestion supervene—formentation, loading to the formation of butryric acid. We have in acids a remedy acids due to either of these causes. If due to too much acid secreted by the stomach, the acid should be given before meals: If not enough, acids should be given after meals.

F.

"NO LAW."

There is no law of Therapeutics! What is the fact? There is lacking any law between disease and a sure remedy. This has been the want of the distant past and is still pressing. The results have been effective as the ingenuity of man can demonstrate; and there has been a limited success from such ingenuity, but no universal law of Therapeutics has ever been discovered. It is not intended to cast any reflection upon the science of medicine, when we assert, that the science is not exact. There are too many obstacles to a law of Therapeutics, as there are systems and systems. The advocates of the various systems, render such Therapeutic conformity impossible.

"PROFESSIONAL PIRACY."

The physicians who practice the precepts of the "Hippocratic Oath," and the "American Code of Ethics"—are few and far between. Numbers of them are so

grasping; so unprincipled, that they steal a patient from a brother practitioner. If, in the absence of a family physician, one of these pirates should happen to be called in, he will not, honorably inform the family, that he will do all he can, till the family physician can be had. No, not he! Moreover, an honest, square-dealing physician, will not pick the pockets of a patient, by exaggerating the symptoms in a case; and multiplying unnecessary visits.

The practice of insinuating that some other physicians are not up to date, and thus conveying the impression that HE is the progressive, is contemptibly mean. No one knows it all! Such men are after the dollars—and disregard everybody else's interests.

Of course we expect the mountebank to be a pirate! Fakirs, advertisers and men who falsely claim to cure incurable cases, are pirates of the kind who filch dishonest gain from the ignorant and misguided; but for an educated, college-bred doctor, to claim superiority, and claim to be regular, is as much to be condemned, as the arrant fakir. F.

THE PRESENT VIEW OF THE CANCER PROBLEM.

Notwithstanding the fact that investigations of the cancer problem have covered almost every possible line of research the cause of cancer is still unknown. We do not even seem to stand on the threshold of any important discovery. Many will still remember when much stress was laid upon the relation of traumatic injury and the development of cancer. Now we feel certain that cancer is not wholly of traumatic origin. Our attention was then directed to micro-organisms as the cause of many diseases so it was natural that many bacteria should be found in and was supposed to be an important factor in the causation of cancer. The disease is quite unlike those due to germs, of which so much has been learned in the last thirty years, and no germ which is capable of causing cancer in human beings or in animals has been found. Cancer is, therefore, not contageous, and there is no danger in treating or in dressing a cancer case.

Cancer was found to be present more frequently in certain families than in other families so it was thought that it was surely heredity. It has now been shown that because one member of a family has it it does not follow that any other member of the family will have it. Certain experiments have been made with strains of white mice which were said to show that, by inbreeding, the occurrence of cancer in these animals is much increased. This occurrence follows the Mendalian law of inheritance, but is observed only in certain strains of white mice and has never been observed in white rats, guinea-pigs, rabbits, dogs, or in other animals in which cancer occurs. No comparison can be made with the cancer which occurs in the human race because in the human race not every parent has cancer as is the case in the experiments with the white mice.

Cancer is now believed to be not hereditary in any appreciable degree.

Cancer attacks all races, both white and colored, both sexes, the healthy as well as those who are in feeble health. It is not altogether a disease of old age. Occupation has not any great influence on the occurrence of cancer. It is not confined to any location or section of the earth.

Recent years have developed new and more interesting methods of investigation. Much research and speculation of late years has been made in regard to the influence of the internal secretions on metabolism and the life processes of the economy, and some strides have been made concerning this connection with cancer. There seems to be little doubt but that the secretion of the ductless glands in common have much to do with regulating the metabolism of the body cells. It has also been shown that mouse cancer can be transplanted and successfully carried through many generations of mice. This is exceedingly interesting but does not give us the desired knowledge in regard to the etiology of cancer. Cancer tissue may be cultivated **in vitro** but we cannot initiate the growth of cancer in any kind of animal. We can make cancer tissue grow but we cannot start a piece of tissue growing in such a manner that it will become cancer and continue as such when transplanted into animals. Certain chemicals—Sudan III and an element derived from gas distillation of coal tar—has been shown to have a marked influence upon the growth of epithelium. They influence cell multiplication **in vitro** and in paraffine cancers but they do not increase our knowledge in regard to the etiology of cancer. They have not the power to start a cancer.

Skin cancers rarely, if ever, develop from a cutaneous surface which is free of antecedent pathological defects, such as moles, chronic fissures, old scars, warty surfaces and keratoses. Exposure to sunlight appears to be one of the most important factors in the development of cancer of the skin. Other important factors are the repeated action of mechani-

cal, chemical and biological irritation. There must be also some deeper underlying cause or causes which disturb the equilibrium between cell growth and the resistance of the adjacent stroma. Cancer does not appear to be purely a local affection but the result of some previous systemic or metabolic disturbance.

Surgery has not solved the mystery of cancer. The efforts of surgeons have been proven unavailing to check to any degree the constant rise in the general death rate from cancer. Statistics still give us the frightful death rate of 90 per cent. of cancer victims notwithstanding the polished reports of apparent cures by early surgery. The underlying principles which permit the growth of body cells and which permits them to overrun their normally prescribed boundaries still continues to elude the host of scientific workers and cancer still remains an unsolved mystery.

THE ECONOMICS OF THE MILK PROBLEM.

The present world war is serving to call attention to the economic phase of municipal sanitary problems which hitherto have received scant attention. Recently the municipal authorities of London, England, realizing the need of labor for carrying on the various activities connected with the prosecution of the war and recognizing the enormous waste of effort involved in the present method of milk distribution in which there is much overlapping of routes and duplication and reduplication of equipment, have taken steps to stop this useless loss of effort.

The milk producers of Massachusetts are also taking cognizance of this waste, claiming that they do not receive a fair share of the proceeds from the sale of milk. They are demanding a more equitable treatment at the hands of the distributor. At their instigation an organized movement is now under way to investigate the whole problem and it is not unlikely that waste in production and transportation will also receive attention. At the present time in New York State a legislative committee is making an intimate study of milk distribution. With power to subpoena witnesses, examine and audit the business records of the great milk distributing companies in the State, it is quite likely that waste, inefficiency of methods and unfair distribution of proceeds which are alleged to exist will be shown in their true light. Numerous cities in the United States have seriously considered the matter of municipal distribution of milk. The city of Seattle at the present time has the matter under consideration.

Some notion of the amount of waste involved in milk distribution may be gathered from studies made in Rochester in 1912. It was shown that in most city blocks there was a different milkman for every two to five homes, that in small sections of the city consisting of not more than a half a dozen city blocks they were supplying milk consumers from thirty to sixty distributors. These distributors would travel in each of these sections from fifteen to thirty times farther than would one were he given all of the trade in the section. This study showed that there were four times as many men and horses employed as were needed and also that there was a tremendous duplication of inferior equipment. Under this wasteful method of delivery it cost as much to distribute milk to the consumer as it does to produce it in the country and transport it to the city, notwithstanding the very considerable invesment involved in owning and operating dairy farms. It was also shown that the waste in distribution adds at least two cents per quart to the retail price of milk imposing a burden and loss annually on the citizens of Rochester of at least $500,000. A similar investigation has been made by the same authority in fifty other American cities and practically the same conditions found. It would seem from this investigation that the majority of the evils which accompany the production and sale of milk as insanitary and poorly equipped milk depots, careless and irresponsible labor, adulteration and sale of inferior products, have their basis in waste and inefficiency. The solution of this difficult problem is one which will tax the ingenuity of students of civic questions. As yet no remedy satisfactory both to distributors and consumers has been proposed.

NERVOUSNESS AND NEURASTHENIA.

Probably there are no more puzzling problems among the minor annoyances which a physician is called upon to treat than those borderland cases between health and disease, usually classed as simple nervousness; and following these, come those other conditions of nerve weakness which have been made so prominent by the later school of neurologists under the name of neurasthenia. We have all been more or less familiar for a long time with hysteria in its many protean forms and with its masked and uncertain pathology, and are accustomed

to regard its congeners as closely related to it,—the one as an aborted, the other an exaggerated type. But how much farther than this have we got? Mystery shrouds the real pathological cause of each of these and as a result treatment is unsatisfactory.

The older writers were in the habit of speaking of disease as organic or functional and later authorities follow the same classification. But is it not about time to drop this distinction? So far as we know of mechanics nothing goes wrong without a cause and "functional" disease is a misnomer, except as a cloak for our ignorance. Jealous Nature is in the habit of closely hiding her choicest secrets and as yet we are too poor clinicians to unravel more than the most obvious of her works. The mind which creates thought just as the engine creates or transforms power is a puzzle which will always remain unsolved by us. How then can we hope to learn much of its diseases or irregularities until we become better acquainted with the microscopical, chemical and physiological structure of the brain itself?

Nervousness is regarded by many physicians as a bugbear, calling only for a sedative and the collection of a fee. But morphine and the bromides or other nervines do not solve the problem of its treatment any more than opiates do the management of appendicitis. The writer, viewing the matter from the standpoint of a patient, pleads for more attentive consideration for these cases, more careful study and more faithful effort to relieve and cure them. What good does it do to tell them they are "only nervous" and that they must "control themselves?" The only proper course to follow, it seems to us, is to set down and carefully study these cases and find out if possible the underlying cause of the nervousness. In recent cases we can generally find some nerve shock or exhaustion from prolonged worry which may (perhaps) have turned some small group of nerve cells on edge or rotated a few atoms in a cell from east to southeast or south. Small causes may light the fires which smoulder for a time or flash up immediately and soon extend beyond control.

In examining these patients attention should be given to the sexual organs and particularly to sex relation. There is a still closer connection in adults between the sexual functions and the brain than there is in children between the digestive and the nervous systems. It may be difficult, and require much tact and persuasion to uncover these causes of nervousness but when finally brought to light it simplifies the whole treatment and puts it on a rational basis. Other causes should be just as diligently sought for but they are usually more easily found, and in fact may mislead or detract from the true cause. Long standing cases, following the law of chronic diseases in general, are more difficult to cure as the condition may persist long after the cause has been removed. Empiric treatment is all we can offer these patients and that generally is only palliative.

C. K.

"ELECTRICITY."

This is an important specialty in medicine. The close anology between electricity and nerve force, is being employed now in the treatment of nervous diseases; but experience has demonstrated that it is applicable to nearly every pathological condition where an improvement of nutrition is sought. It is a tonic, in nervous debility. Through the nervous cords, which act as conductors, every part of the animal organism can be reached. Through it the elimination of morbid products may be promoted and the organs restored to healthy function.

Electricity may be applied to every morbid condition. Its wonderful power in electrolsis, has been used as a decomposing effect and has been very successful. The surgeon uses it in many morbid growths, instead of the knife. At the present day it is used extensively for its therapeutic effect in the treatment of many diseases.

F.

"NEURASTHENIA"

"Canst thou not minister to a mind diseased; pluck from the memory a rooted sorrow; raze out the written troubles of the brain; and with some, sweet, oblivious antidote, cleanse the stuffed bosom of the perilous stuff that weighs upon the heart?"

Among the most difficult cases physicians are called on to treat, are cases of neurasthenia. There is melancholy, and a state of gloom, and depression. The term "neurasthenia," is a low state of the nervous system. Many cases come close to the border line of insanity; and are sometimes the precursors of cerebral softening.

Neurasthenia and hysteria, belong to the same category. According to authorities, such diseases are not primarily of the nervous system, but are due to an invitation and disturbance of the oxidation process.

Valvular heart disease in neurasthenia is rare, but it is found that there are

cardiae murmurs, which are the result of a weakening of the heart muscle, from a deficiency of innervation. Neurasthenia is the effect of auto-intoxication.

The waste products are not eliminated as fast as they ought to be. Not only is the nervous system poisoned, but sufficient nutritive material is not brought to the centers of activity. Such a state results in malnutrition. There is also a deficiency in the cell elements of some cases, which arrests development and per consequence, there is anemia. The melancholic condition peculiar to Neurasthenia, accounts for many suicides.

F.

"PREPAREDNESS."

With medical men, it should have no ending, so long as he may be engaged in the practice of his profession! Keeping step in the march of progress, is absolutely necessary. Unless one is constantly engaged in study and research, he will not keep abreast of these times of discovery, improvement and scientific advancement.

It is inexcusable, if a physician hasn't the ambition to advance. Many lack application and industry. They are to be found in every community. Preparedness means efficiency; and efficiency means success; success means wealth and reputation; reputation is everything, if honorable!

Read current medical thought, as expressed in the best and ablest medical periodicals.

There can be no success in any avenue of business, without preparedness. Without thorough preparedness, there can be no certainty, or accuracy of diagnosis, or acquaintance with the most effective means of prevention, or the combating of disease.

We must be improving our knowledge of disease, and the most approved means of cure. "Knowledge of disease is half the cure." F.

EDITORIAL NEWS ITEMS

Dr. Lucien Lofton, of Richmond, Va., was on September 7th, appointed by the Administrative Board of Richmond, Va., as temporary district physician to fill the vacancy caused by the death of Dr. James F. Crane.

Inasmuch as Dr. Lofton is a very competent physician, he will look after the health of that district of Richmond with success and approval.

Dr. R. A. McBrayer of Sanitorium, N. C., has been commissioned first lieutenant of the Medical Corps of the National Guard and assigned to service with Hospital Corps, No. 1.

The meeting of the Fourth District Medical Society of South Carolina was held in Greenville, S. C., on September 26th. The meeting was well attended and a great many valuable papers were read and freely discussed.

Dr. J. B. Whitehead, age 72 years, a widely known and prominent physician of Nelson County, Virginia, died at his home in Livingston, Va., on Sept. 7th. He was a professional medical gentleman of prominence. He graduated from the Medical College of Virginia in 1866.

Barium Springs, N. C., on September 19th, formally opened a newly completed and modern hospital, the cost of which was $15,000.00 or more. The wealthy Sprunts of Wilmington, N. C., contributed the funds to erect this fine hospital.

Dr. A. J. Crowell of Charlotte, N. C., is one of the trustees of this institution.

The Medical College of Virginia was formerly opened on September 21st. The enrollment of new students was very large. Dr. Stuart McGuire, dean of the College and one of the most accomplished and greatest men in the medical profession in this section of the South, made a very interesting speech, which was enthusiastically received.

Dr. S. P. Oast, Jr., has returned to his home in Portsmouth, Va., after spending five months as hospital surgeon with the allies in the hospitals in France. He was attached to the American Ambulance, a splendid organization for the relief of the wounded soldiers of the allies in France.

Dr. Oast has been greatly benefitted in his profession by the experience while at the battle front in France.

Wake Forest College, North Carolina, is taking a pioneer step in college education by adding a new course this year in physiology and hygiene, which will be required for all degrees in the future. Dr. W. T. Carstarphen, professor in physiology in the school of medicine, has made extensive investigations in this subject and is convinced of the pressing need of such a course.

Dr. Thomas Emmett Stratton, died at his home in Richmond, Va., on September 7th. He was 78 years of age.

For many years Dr. Stratton was Pres-

ident of the Richmond Board of Health and prominent for years in the medical fraternity of Virginia. He was a member of Mosby's command and served with credit throughout the War Between the States. He graduated at the Medical College of Virginia in 1863.

Dr. John Thames of Wilmington, N. C., after a conference with the health board on September 9th, has accepted the position of Health Officer for Winston-Salem, N. C., The Doctor assumed his duties of office October 1st. He succeeded Dr. J. J. Kinyoun. Dr. Kinyoun has been ordered back to Washington by the government health officials.

Dr. Thames has been associated with Dr. Nesbit at Wilmington, in health work for some time, and is thoroughly competent. Winston-Salem is fortunate in getting his services in health matters.

Dr. Arnold Stovall, of Wilmington, N. C., was recently elected county physician of New Hanover County, N. C. He assumed the duties of this office October 1.

Dr. Stovall located in Wilmington two years ago and has attracted very favorable attention. He was originally from Georgia. After completing his medical training in the University of Pennsylvania, one of the greatest training schools for medical men in America, he located in Gastonia, N. C., and later in Wilmington, where he has been practicing medicine. He has made good and the people of that city and New Hanover County, appreciate him.

The Gastonia, N. C., Hospital, is to be greatly enlarged and improved. It now occupies practically all of the seven-story building on Gastonia's main street. This change was necessary on account of the increased patronage of the institution and on account of the fact that the managers and physicians connected with the institution wanted to have more room for their nurses. They have recently installed a very complete X-ray outfit which they say cost about four thousand dollars. This will add a great deal to the efficiency of the institution. Few hospitals in this section of the country are better equipped for medical and surgical cases than the City Hospital in Gastonia, N. C. The physicians and surgeons connected with it are among the very best medical and surgical gentlemen in North Carolina.

Dr. Robert C. Bryan, one of the most prominent surgeons and distinguished physicians of Richmond, Va., who has been serving with the French Medical and Hospital Corps near the front at Somme, France, has returned to Richmond.

Dr. Bryan has been away from his hospital and his large practice in Richmond for nearly a year. His experience while at the battle front in France will be and has been a great value to his already extensive practical experience.

Dr. Bryan went to France associated with the American Red Cross Society. He went at once to Juilly Hospital where his services as a surgeon were well received and welcomed.

Dr. Robert W. Crawford, a very prominent physician and graduate of Washington and Lee University, died in Strausssburg, Va., September 22nd. For several years he has been located at Rocky Mount, N. C., as chief surgeon of the Atlantic Coast Line Railway Company and superintendent of the company's hospital. He was a young man, only thirty-seven years of age. Prior to his graduation receiving the degree of Doctor of Medicine from the University of Maryland, he received the degree of Bachelor of Arts, from the Washington and Lee University.

Dr. Crawford was a very prominent professional gentleman, and his death, at his early age, is a great loss to the medical profession not only in North Carolina, but all over this section of the South Atlantic States.

Dr. G. G. Hankins, physician at the Eastern State Hospital for the Insane in Virginia, is now at the Johnson-Willis Hospital in Richmond, Va., on account of the result of a murderous assault made upon him on September 24th, by one of the patients in the Eastern State Hospital.

Dr. Hankins was going through the wards, examining the patients, when without warning, an enraged patient, crept up behind him and delivered him a blow which fractured his skull. The patient used a nine-pound window weight in delivering the blow. Surgeons at the Johnson-Willis Hospital in Richmond, report that Dr. Hankins is in a very serious condition and it is doubtful as to his recovery.

Dr. John H. Mease, a prominent physician of Canton, N. C., died in a hospital at Goldsboro, N. C., on September 24th. He had been at Camp Glenn for several months attached to the Ambulance Corps that has just left for the border. The Doctor was making an effort to get to

his home in Canton, above Asheville, N. C., but was compelled to stop at a hospital in Goldsboro for treatment.

Dr. Mease graduated at Vanderbilt University in 1893. He was licensed to practice medicine by the North Carolina Board of Medical Examiners in 1893. He joined the North Carolina Medical Society in 1894 and has been an honored and useful member of this organization for over twenty years. His death is a decided loss to the medical profession of North Carolina and this news will be received with great regret by hundreds and hundreds of his professional associates.

Dr. Edward M. Gayle has resigned his position as assistant physician at the State Hospital in Morganton, N. C. Dr. Gayle was one of three who organized and constituted the Westbrook Sanatorium in Richmond, Va.

The other physicians who are associated with Dr. Gayle and who are senior partners are Dr. John Hall and Dr. James Anderson. They are three of the most prominent skilled and learned physicians in this section of the country and they have an institution that has attracted very favorable attention and received a large patronage from all over the South.

We have an idea that it is a very wise conclusion that Dr. Gayle came to by resigning his position at our State Hospital and going back to Richmond. While he is a great loss to the medical faculty at Morganton, there is no doubt but that it is best for him both professionally and financially to again take up his work in Richmond.

The Hospital Board at Morganton passed some very complimentary resolutions about Dr. Gayle when they accepted his resignation.

The Tranquil Park Sanitarium at Charlotte, N. C., adds a new medical institution to our already several magnificent hospitals. Dr. J. Q. Myers is to be in charge of this Sanitarium. This means that it will be a success. Dr. Myers is not only a splendid physician and a physician of prominence and reputation, but he is a good business man, and there is no doubt that this new hospital will be a success from the beginning.

Its location is ideal, about one and one-half or two miles from the center of Charlotte, or possibly a mile from the outskirts of the city, located in beautiful park-like surroundings. Dr. Myers will live in or near the Sanitarium.

The institution is especially constructed to take care and treat nervous diseases, cases of neurasthenia and patients who are run down by business cares and worries. The buildings, grounds and all appointments are arranged with a view to the treatment of several classes of cases above mentioned. It will be equipped with therapeutic baths, different forms of physical exercise, massage by trained experts, and medical electricity in appropriate cases. The hydro-therapeutic department will be especially well equipped.

The buildings of the Sanitarium are beautiful—and when it opens, no doubt it will be crowded with patients all the time because it merits the confidence and patronage of sick people.

Parke, Davis & Company, Detroit, Mich.—We have just received a Jubilee Souvenir from Parke, Davis & Company, descriptive of the growth of their plant from 1866 to 1916. It is certainly a beautiful and attractive booklet and is interesting from the beginning to the end. Of course all the medical men know that this has been one of the most remarkable houses in a chemical way that has ever existed in the world. Its biological laboratories, its animal gland therapy, its animal industry products, its research laboratories, its department of experimental medicines, its foreign markets, its American branches, its administrative changes, its physiological assay, its chemical standardization, its new vegetable drugs, its early policies and struggles, really its story for fifty years, is very interesting indeed.

The original buildings in 1866, its laboratory in 1883, its European laboratory in Hounslow, England, its Canadian laboratory in Walkerville, Ontario, its buildings on Parkedale Farm, various scenes in Parkedale Farm, its Research Laboratory in Detroit, its American branches in Baltimore, New York, Chicago, Kansas City, New Orleans, Seattle, St. Louis, Minneapolis, and its foreign branches in London, Bombay, Sydney and Petrograd, are wonderful photographs to observe.

The history of the growth of this great manufacturing concern is one of the most remarkable business enterprises, from a medical standpoint, in the world's history —it is simply wonderful.

Among the prominent officials whose photographs appear in this booklet are the following:

Frank G. Ryan, President.
Henry M. Campbell, Vice-President.
David C. Whitney, Vice-President.
George Hargreaves, Treasurer.
E. G. Swift, Secretary and General Manager.
James E. Bartlett, Assistant Secretary and Treasurer.

N. H. F. McLeod, Auditor.
Arthur H. Buhl, Director.
Charles Stinchfield, Director.
J. C. Spratt, Traveling Service.
Joseph Helfman, Secretary to the General Manager.
E. M. Houghton, Ph. G., M. D., Biological Research.
Harry B. Mason, Periodicals.
J. M. Francis, Ph. D., Chief Pharmacist.
E. R. Larned, M. D., Experimental Medicine.
Walter G. Norvell, Traffic Manager.
M. D. Wasson, Credits.
F. R. Perry, Special Preparations.
W. H. Holden, Manufacturing.
James Wilkie, Mechanical.
George W. Mutter, Purchasing.
W. H. Kirn, Private Formula.
Harry Skillman, Advertising.
C. R. Marshall, A. M., M. D., Medical Literature.
C. N. Anderson, Animal Industry.
H. B. Phelps, Trade Promotion.
C. M. Woodruff, General Counsel.
O. W. Smith, Branch Manager, New York.
George L. Genz, Branch Manager, Chicago.
W. C. Hayhurst, Branch Manager, St. Louis.
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B. A. Parsons, Branch Manager, Kansas City.
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W. H. Davis, Branch Manager, Pacific Coast.
W .M. Grant, Branch Manager, Walkerville, Ont.
J. J. Swift, Branch Manager, Montreal.
S. S. Coleman, Branch Manager, Bombay.
H. J. Fisk, Branch Manager, London.
R. D. Ellis, Branch Manager Buenos Ayres.
C. C. Murray, Branch Manager, Sydney.
E. Brier, Branch Manager, Petrograd.

To look over this booklet will interest any medical man in this country. In the event that you do not receive a complimentary copy of this beautiful booklet, please write to Mr. Harry Skillman, Advertising Manager, of this great plant, and he will send you on request, a copy of it.

BOOK NOTICES.

Diseases of Children. By Edwin E. Graham, M. D., Professor of Diseases of Children, Jefferson Medical College, Philadelphia; Pediatrist to the Jefferson Hospital and to the Philadelphia Hospital; Consulting Pediatrist to the Training School for Feeble-minded, Vineland, N. J.; Member of the American Pediatric Society, etc. Octavo, 902 pages, with 89 engravings and 4 plates. Cloth, $6.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

In the preparation of this work the aim of the author has been to make it represent the most modern views upon each subject discussed, and to present these views in such a way that they may be immediately available to the busy practitioner as well as perfectly clear to the medical student. In the discussion of treatment no details have been overlooked, and the physician engaged in general practice may find herein the precise management of a typical case of any disease which he is called upon to treat. Infant Mortality, Heredity, and Environment, so interesting and important from the standpoint of the pediatrist, Fresh Air in the Treatment of the Healthy and Sick Child, and Puberty have been thoroughly discussed in separate chapters specially devoted to the subjects.

The subject of Infant Feeding has received particular attention; the preparation of milk mixtures, usually a vague subject to both the general practitioner and the student, is carefully explained, and the calculation of caloric and percentage feeding has been illustrated by formulas reduced to ounces. Diseases of the Gastro-intestinal Tract have been presented in full, and some of the most advanced ideas concerning diagnosis and treatment have been incorporated. Food Injuries, Chronic Constipation, Pylorospasm, and Pyloric Stenosis have received special consideration, a careful differentiation being made between the two latter affections.

A whole chapter is devoted to Diseases of the Liver, while Diseases of the Spleen are fully discussed, and enlargement of these two organs, a common condition in children, is carefully considered. In the chapter on Diseases of the Skin the aim has been to suggest for the most important skin lesions such therapy as is applicable to children. A special chapter has been devoted to Dentition, the author regarding this as a normal and physiological process in the course of normal de-

velopment. Particular attention is also called to the articles on Influenza, Pertussis, Anterior Poliomyelitis, and Enlargement of the Thymus Gland.

Diseases of the Digestive Tract and Their Treatment, by A. Everett Austin, A. M., M. D., Former Professor of Physiological Chemistry at Tufts College, University of Virginia, and University of Texas; Present Assistant Professor of Clinical Medicine, in charge of Dietetics and Gastrointestinal Diseases, Tufts College; Member of American Gastroenterological Association and American Society of Biological Chemists; Physician to Mt. Sinai Hospital and Berkeley Infirmary, and Assistant to Boston Dispensary; Author of "Manual of Clinical Chemistry," etc. With eighty-five illustrations, including ten color plates. St. Louis, C. V. Mosby Company, 1916.

This volume in all probability is the best for its size that any publisher has offered to the medical profession for quite a long time. Its eighty-five illustrations, including ten colored plates adds a great deal to the value of the book. Certainly every medical book reader in the United States is familiar with Dr. Austin's writings and his contributions to medical literature. His ideas are always respected and well received—but of course this is not any more than ought to be expected.

I want to congratulate the publishers on having an opportunity in securing for publication a manuscript like this. It contains 552 pages—and is very appropriately and interestingly illustrated.

I am very sorry that the publishers did not send me the price of the volume in sending it to me for review. It is certainly worth four or five dollars. It is handsomely bound, appropriately and accurately indexed—and I take pleasure in recommending it.

Immunization Against Tuberculosis, by Karl Von Ruck, M. D., and Silvio Von Ruck, M. D., New York, Paul B. Hoeber, 1916. Price, $4.00.

I have looked over this very valuable book with a great deal of interest—and it is full of valuable information concerning the immunization against tuberculosis.

The Von Rucks—father and son, of Asheville, N. C., are possibly the best known authorities on every phase of tuberculosis in this country.

Next to the title page in the book, we make the following quotation, which is quite appropriate and full of valuable meaning:

"The ancient Jews used to say, that a man does not fulfill his duties in life, who passes through it, without building a house, planting a tree, and leaving a child behind him. A physician, in like manner, should consider his obligations to his profession and society undischarged, who has not attempted to lessen the number of incurable diseases."

The book contains 440 pages, with a very appropriate and well arranged index. The publisher has certainly done his work well and deserves our approval. It is very likely that Dr. Karl Von Ruck has contributed more to the medical press on various phases of tuberculosis than any other medical gentleman in this country. The book is made up, or possibly the major part of it, in his experience and the result of research work in his magnificent Sanatorium, the Winyah Sanatorium, in Asheville, N. C. He and his son and assistants have every facility and an abundance of material, to speak authoritatively about tuberculosis, all of its clinical manifestations, and its prognosis and medical treatment. It certainly gives me a great deal of pleasure to recommend this book to anyone who is interested in this part of medical literature.

The Treatment of Acute Infectious Diseases, by Frank Sherman Meara, M. D., Ph. D., Professor of Therapeutics in the Cornell University Medical College in New York City. Attending Physician to Bellevue Hospital, New York; Consulting Physician to the Mountainside Hospital, Montclair, N. J.; and to the Morristown Memorial Hospital, Morristown, N. J.; Associate Attending Physician to St. Luke's Hospital, New York. Price, $3.50. New York, The MacMillan Company, 1916. All rights reserved.

The fact that Dr. Meara wrote this book is sufficient recommendation for it. He is in all probability, one of the most attractive writers in America. When lecturing, even with his tiresome subjects, Materia Medica and Therapeutics, he is very interesting. He is a very popular lecturer and writer—and anything that he writes has always appealed to me.

The book is a clear, concise presentation of the treatment of this group of diseases and is unique in method, being constructed along new lines. It is thoroughly practical and up to date and instructs rather than discusses, while at the end of each chapter a detailed summary is provided for student review and for reference by the busy practitioner in an emergency.

I think the publishers are to be con-

gratulated on selecting such a wonderful and attractive manuscript.

A Practical Treatise on Disorders of the Sectual Function in the Male and Female, by Max Huhner, M. D., Chief of Clinic, Genito-urinary Department, Mount Sinai Hospital Dispensary, New York City; formerly, Attending Genito-urinary Surgeon, Bellevue Hospital, Out-Patient Department and Assistant Gynecologist, Mount Sinai Hospital Dispensary, New York City; Member American Urological Association, American Medical Association, New York Urological Association; Fellow of the New York Academy of Medicine, etc.; Author, Sterility in the Male and Female and its Treatment, etc. Price, $3.00. Philadelphia, F. A. Davus & Company, Publishers, English Depot, Stanley Phillips, London, 1916.

This book contains 318 pages, beautifully bound, and is a very attractive looking volume. As the title of the book implies, it deals with subjects that are quite important to the human race, and one which gives physicians in dealing with his patients, frequently a great deal of concern, and sometimes the ultimate result sends the patient to the asylum and less frequently to the penitentiary; consequently, the practitioner or anyone who is interested in the treatment of disease, should read this book and he will be greatly benefited.

There is no debate about Dr. Huhner being capable of writing a volume on this subject. He is well known to the intelligent medical gentlemen of this country. He is considered authority on every phase of the different disorders of the sectual functions in the male and female. He has written many articles of very great scientific value that has been read before different medical associations and published in many medical journals and abstracted by different journals all over the world. We take very great pleasure in recommending the volume.

Analyzing Character, the New Science of Judgment Men; Misfits in Business, the Home and Social Life, by Katherine M. H. Blackford, M. D., and Arthur Newcomb, Authors of "The Job, the Man and the Boss." Illustrated from Photographs. Fourth Edition. New York, The Review of Reviews Company, 1916.

Dr. Blackford needs no introduction to the medical literary world. We have no writers in this or in any other country, who write more scientifically and interestingly than she. We copy the following, which will give the reader a very good idea of the value and character of this volume:

"Remember that Dr. Blackford has made a science, not a casual excursion into speculative and guessing fields. Remember that she was paid $16,000 a year by a great manufacturing corporation in the Middle West to use her science in selecting its thousands of employes. Remember that thousands of men and women, Governor of States, high executives of notable industries, high priced sales managers, eminent lawyers and doctors, as well as humble clerks and beginners, are being taught by her to analyze character, to know themselves and others.

"This book that we are ready to give you free, postpaid, as a prize for promptness, shows the part that light and dark complexions, hair, and eyes play in establishing the foundations of character and explains why it is so in a manner that anybody can understand and that everybody will find intensely interesting.

"Bear in mind, that this book contains what is in no other books in the world, what Dr. Blackford has discovered and mapped out through seventeen years of work. It will be a further stepping stone for you toward the magnificent achievement of knowing yourself as you really are and other people as they really are. Is anything in life more important? Think of the mistakes you could have avoided, of the accomplishments you could have had if you had known how to 'size up' accurately yourself and your fellow man."

The fifty-five or sixty illustrations in the book, have a very peculiar interest. They have been wisely selected, the photographer and artist have done fine work, which adds a great deal to the value of the book. I am certainly glad to have the opportunity to add this book to my library.

The Mother and Her Child, by William S. Sadler, M. D., Professor of Therapeutics, The Post-Graduate Medical School of Chicago; Director of the Chicago Institute of Physiologic Therapeutics; Fellow of the American Medical Association; Member of the Chicago Medical Society; The Illinois State Medical Society; The American Association for the Advancement of Science, etc., and Lena K. Sadler, M. D., Associate Director of the Chicago Institute of Physiologic Therapeutics; Fellow of the American Medical Association; Member of the Chicago Medical Society; The Medical Women's Club of Chicago; National Congress of

Mothers and Parent-Teacher Association; The Chicago Woman's Club, etc. Illustrated. Price, $1.50. Chicago, A. C. McClurg & Co., Publishers, 1916.

I have not looked over a book for review in a long time that I like better than this. It is thoroughly practical and is full of a great deal of valuable information, especially Part III. It contains 456 pages and is very thoroughly indexed and makes a very good appearance.

The authors are parents, as well as skilled physicians. They have produced this work out of their years of experience, observation, and study, and in response to an insistent call from patients and public.

It consists of three parts or divisions of its subject: Part I dealing with the mother until the birth of the child; Part II with the infant until the weaning period, and Part III with the problems connected with the care and bringing up of the child until adolescence.

The advice given covers the ground fully, clearly, entertainingly. The book is packed with valuable information expressed in plain language. An appendix gives plain directions for different kinds of baths, prescriptions for various disorders, and other special information.

I take pleasure in recommending this book.

Pediatrics, Orthopedic Surgery, The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery—under the general editorial charge of Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume V, Pediatrics, Edited by Isaac A. Abt, M. D., Professor of Pediatrics, Northwestern University Medical School, Attending Physician Michael Reese Hospital. With the collaboration of A. Levinson, M. D. Orthopedic Surgery, Edited by John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Northwestern University Medical School, with the collaboration of Charles A. Parker, M. D., Series, 1916. Price, $1.35. Chicago, The Year Book Publishers, 327 S. La Salle Street.

This volume will be well received. It deals with a very important subject and one that should interest every practicing physician. Its chapters on Orthopedic Surgery of course is of less interest, but certainly anyone who is interested in that kind of surgery, would do well to buy this book.

Dr. John Ridlon, of the Northwestern University Medical School, is a man of great reputation and is considered authority in writing on this subject.

Gynecology, The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery—under the general editorial charge of Charles L. Mix, A. M. M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume IV. Gynecology, Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago—and Herbert M. Stowe, M. D., Assistant Professor of Obstetrics, Northwestern University Medical School; Attending Gynecologist to Cook County Hospital. Series 1916. Price $1.35. Chicago, The Year Book Publishers, 327 S. LaSalle Street.

Of all the volumes of this series, this one is in all probability the most valuable that has ever been issued. It is not the largest however, containing only 232 pages—but it is very beautifully and appropriately illustrated. Another feature about this book is that the valuable new things pertaining to gynecologic literature for the present year is confined mostly to American writers. The physicians in Europe and the Eastern Countries are not contributing very much to medical literature now. Of course we understand that this is on account of the horrible war in these different countries.

Episcopal Hospital Reports. Hospital of the Protestant Episcopal Church in Philadelphia—Medical and Surgical Reports of the Episcopal Hospital—Volume III—Philadelphia, Press of Wm. J. Dornan—1915.

This Third Volume of the report of this great Hospital is possibly superior to any that has been published. It contains 356 pages, and is thoroughly and appropriately indexed. Its illustrations are many and it is certainly interesting and valuable—you can spend hours and hours at a time looking over them.

I certainly believe that this institution is one of the best in this country—judging from the work they are doing and the results they obtain. The section on fractures and various methods of treatment, is not only valuable, but presented in such a way, that it is really interesting to examine them. Their X-ray department, judging from this Volume, must be in the hands of a very great expert, assisted by a competent artist.

The price of the Volume is not given, and we do not know whether it is for sale

or not, but it is a book easily worth four or five dollars.

Progressive Medicine, a quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences, Edited by Hobart Amory Hare, M. D., Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; One time Clinical Professor of Diseases of children in the University of Pennsylvania; Member of the Association of American Physicians, etc., Assisted by Leighton F. Appleman, M. D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; Opthalmologist to the Frederick Douglas Memorial Hospital and to the Burd School; Instructor in Opthalmology, Philadelphia Polyclinic Hospital and College for graduates in Medicine. Volume III. September, 1916. Diseases of the Thorax and its Viscera, including the Heart, Lungs, and Bloodvessels—Dermatology and Syphilis—Obstetrics—Diseases of the Nervous System. Awarded Grand Prize, Paris Exposition, 1900. Lea & Febiger, Publishers, Philadelphia and New York, 1916. Subscription price, $6.00 per annum.

The Eighteenth Century in France (Crowned by the Academie Des Sciences Morals Et Politiques). By Casimir Stryienski Translated from the French by H. N. Dickinson, Price $2.50 New York, G. P. Putnam's Sons, Publishers.

Casimir Stryienski, author of The Eighteenth Century in France, though not a Frenchman by origin, is so proficient a master of French history and of the French language that three of his works, including the present volume, have been "crowned" by the Institute of France—a distinction of special significance when conferred on a foreigner. Seventy-four years of the Eighteenth Century are covered by this volume—from the accession of Louis XV in 1715, to the meeting of the States-General in 1789, when the march of the Deputies through the streets of Versailles to the solemn service before the opening session was likened to the funeral procession of the monarchy.

This is really a very valuable volume, and it has attracted the attention of everyone who is interested in modern French history. The volume contains 335 pages, and as is the usual custom of this great publishing house, it is gotten up in a very attractive style. The paper and type that has been used and the general make-up of the volume, is in every way, aside from its interesting contents, very attractive, and should appeal to every lover of books.

The French Revolution (Crowned by the French Academy) (Gobert Prize) by Louis Madelin, translated from the French. Price $2.50. New York, G. P. Putnam's Sons, Publishers, 1916.

"The French Revolution," said the late Albert Vandal, "is perhaps the most complex phenomenon that ever existed, a phenomenon essentially manifold in its causes, its elements, its movements, its consequences." While M. Madelin's attention has been more especially turned to political history he has never lost sight of other phases of this complex period, with the result that his volume ensures a clear comprehension of the facts and a final impression in conformity with justice. He has indeed done his task well. With this volume he won the Grand Prix Gobert of the French Academy. That distinction, which is the blue ribbon of history prizes, puts him in the same class with Albert Sorel, Albert Vandal, Thureau-Dangin, and Henri Welschinger. The author considers his subject under the five general headings of "The France of 1789," "The Constituent Assembly," "The Legislative Assembly," "The National Assembly," and "The Executive Directory." The bibligraphies at the end of each chapters are a testimony to M. Madelin's thoroughness.

This book especially at this time is of unusual interest and value. It is a large volume of nearly 700 pages, and it certainly deals, as one can recognize in a very few minutes, with all the historical facts concerning the French Revolution. The French history, and certainly in Napoleon's time if that is taken into consideration, is possibly the most interesting of any of the histories in any nation, not only in Europe, but in all of the Oriental countries.

The Luck of Thirteen, Wonderings and Flight through Montenegro and Serbia, By Mr. and Mrs. Jan Gordon—with photographs and a map, tail pieces by Cora J. Gordon, color plates by Jan Gordon. New York, E. P. Dutton & Company, 681 Fifth Avenue. 1916.

This very handsome volume of 378 pages is one of the most interesting and attractive books that we have looked over in a long time. The map of Serbia, Albania and Montenegro, at this time, is especially interesting.

With their kodaks, Mr. and Mrs. Gordon, were enabled to take many, many photographs in the different parts in which they wandered, which makes the book a great deal more interesting and attractive than possibly any book that has been written to this time, dealing with travels over this section of the world. Anyone who is interested in knowing something about this section of the world, can read this volume and look at the drawings and photographs in it, all day without growing tired.

The price of this volume is $2.50 net, which is a very small price for a book of this value.

These Lynnekers, by J. D. Beresford, Author of "The Early History of Jacob Stahl," "A Candidate for Truth," etc. Price $1.50, New York, George H. Doran Company, Publishers.

The creator of Jacob Stahl, that remarkable trilogy which placed J. D. Beresford among the first six living realists, reaches a new high level in These Lynnekers—the author's most ambitious and deliberate effort, in which he eminently succeeds—indeed Dick Lynneker from boyhood through adolescence to manhood is a character creation of permanent significence to literature.

The author is already well known to the reader of fiction on account of his book entitled "The Early History of Jacob Stahl," "The Candidate for Truth," and his other writings. This kind of literature written by him is always well received, and no doubt this present book entitled "These Lynnekers" will be well received. I do not hesitate to recommend this book for anyone who is interested in reading this class of literature and I think everyone should read this class of literature. The book is a very handsome volume of 456 pages and is certainly well worth $1.50.

The Prisoner, by Alice Brown, Author of "My Love and I," "Children of Earth," "Rose MacLeod," etc. Price $1.50. New York, the MacMillan Company, Publishers. 1916. All rights reserved.

Anyone who has read Alice Brown's "My Love and I," her book on "Children of Earth," or her book on "Rose MacLeod," will except this fourth volume to be a master-piece—and it is. She is a very clever writer and her style is popular and attractive. The book contains 471 pages, and is indeed a very interesting novel.

Chapel, The Story of a Welsh Family, by Miles Lewis. Price $1.35, New York, George H. Doran Company Publishers, MCMXVI.

Miles Lewis is among the recent additions to the young English writers whose first books have scored brilliant successes.

Chapel is the family name of the motherless hero of a great narrative and study in the development of character and characteristics.

The Book is highly romatic, yet it presents life as it really is. That it is a story of life in Wales but adds to its interest because of the relative scarcity of novels of that country.

The book contains 344 pages and is interesting from the beginning to the end. The Author's style of writing is very attractive and his knowledge of English is almost perfect.

The Pioneer Boys of the Columbia, or: In the Wilderness of the Great Northwest, by Harrison Adams, Author of "The Pioneer Boys of the Ohio," "The Pioneer Boys of the Missouri," "The Pioneer Boys of the Yellowstone," etc. Illustrated by Walter S. Rogers. Price $1.25. The Page Company, Publishers, Boston. MDCCCCXVI.

Of course anyone that is familiar with the story of "The Pioneer Boys of Ohio," "The Pioneer Boys of Missouri," or the "Pioneer Boys of Yellowstone," written by Mr. Adams, would be immediately interested in this book. I know of no volume that would give anyone more interesting reading for a day than this interesting book. Its illustrations are very exciting. On page 32, is a wonderful illustration. Of course it is a story of Western stories and Western scenery, but it is very modernly described. I have never seen a more interesting picture or illustration than appears on page 317—and it is so appropriate to illustrate the text. Of course this book is light reading, at the same time, it is very amusing, interesting and exciting.

Man Proposes or The Romance of John Alden Shaw, by Eliot H. Robinson, illustrated by William Van Dresser. "Man proposes, but God disposes." Thomas a Kempis. Price $1.25. The Page Company, Boston, MDCCCCXVI.

This is a very interesting novel. It is a very handsome volume of 359 pages. On account of the want of space, I cannot, very much to my regret, give this very interesting novel a detailed review. I will say, however, please read it, as every chapter, every paragraph, and ev-

ery sentence in it, will interest you. The illustrations are not many, only four, but they are beautiful. Chapter XVII, entitled "In Which Some Sporting History is Retold," beautiful and exceedingly interesting.

The World-Mender, a Novel, by Maxwell Gray, Author of "The Silence of Dean Maitland," etc. Price $1.35. D. Appleton & Company, Publishers, New York, 1916.

Rising step by step from the place of a poor village boy, George Darrell has all but reached the topmost rung in the ladder of political and social influence. He has become the political hope of the common people and is known as "The People's Man." Ambition to rule, however, gradually dulls his vision of the ideal he had placed before him as his ultimate goal and he willingly makes sacrifice to gain social and political power. All too suddenly he realizes that he has sacrificed too much. The love of a beautiful and cultured woman he has cast aside as nothing because the possibility of a more brilliant marriage presents itself, and he reaches out for the prize that tempts him only to find it crumble within his grasp. Then comes the awakening and the fight to regain his self-respect. It is a powerful portrayal of the result of a man's sacrifice of his higher self for selfish ambition, and the splendid handling of this situation and its sequel makes it the best work from this gifted author's pen.

This is a handsome volume of 466 pages. The reviewer has looked over it with a great deal of interest—and it is a novel that will entertain anyone.

The School and the Immigrant, by Herbert Adolphus Miller, Professor of Sociology, Oberlin College, The Survey Committee of the Cleveland Foundation, Cleveland, Ohio.

This is a little book of 102 pages. It has no price attached to it and I rather think it is intended to be sent out complimentary—however, I am not certain on this point. I have looked over the book with considerable interest—and found that it is full of valuable and important knowledge. It deals as the title suggests, with School and the Immigrant —which is a very important subject. It would be well enough to write the publishers to send you a copy.

Our Little Viking Cousin of Long Ago, being the Story of Biarne Herjulfson, a Boy of Norway, by Charles H. L. Johnston, Author of "Famous Indian Chiefs," "Famous Cavalry Leaders," "Famous Scouts," etc. Illustrated by H. W. Packard. Boston, The Page Company, Publishers, MDCCCCXVI.

The author exhibits in this volume that he is a man of talent—he writes attractively, wisely and logically. Anyone who is interested in reading this class of literature—would do well to buy the book. The price is only 60 cents, and certainly for a family of several people, especially children, it would be read with much interest and profit. For this class of readers the little book is very commendable.

Miscellaneous.

The term aerial disinfection is employed to mean the use of the air as a vehicle for diffusing, to all exposed surfaces of the room and its contents, a gaseous germicide. The disinfection of the air itself, more or less loaded with germ laden dust particles as it usually is, may be regarded as incidental, just as would be the case with water used in making a disinfectant solution. Air and water are the natural agencies for cleansing an infected apartment. Why should we not render the former germicidal as well as the latter? Some of the most prominent opponents of fumigation advocate a renovation of infected apartments so thorough as to include repapering, repainting, etc. They would subject the scrub woman, paperhanger and painter to the danger they thus clearly recognize, without the protection which a prior and efficient fumigation would afford.

An eminent scientist has placed before a symposium of health officers seven questions hereinbelow mentioned:

1. After what diseases do you think it desirable to fumigate?

2. Do you regard formaldehyde as the most satisfactory aerial disinfectant? If not, what in your opinion is better?

3. Do you think the conclusions reached by Mr. Adams justified?

Reads as follows:

"I am assuming in what follows, only two points: That you are an adult, and a non-consumptive at present. On the hypothesis:

1. You have had tuberculosis.

2. You have cured yourself of it.

3. In the process of curing yourself you have so fortified your body against it that you are safe against "catching" the disease from any other person.

4. If you now become a consumptive it will be through a relapse and by your own fault.

4. Even if this new theory of tuberculosis were generally accepted, would it not point to the necessity of fumigation after pulmonary phthisis to protect children?

5. Have you, in your experience, thoroughly satisfied yourself as to whether or not communicable diseases are commonly conveyed by objects handled by the patient? In other words, what role do fomites play in carrying infection?

6. How is it that some sanitarians who advise burning books handled by a person having a contagious disease, regard the fomite theory, as applied to things generally, so lightly that they do not fumigate the room and its contents?

7. Is not the viability of pathogenic bacteria so influenced by deficiency of light and fresh air, and so affected by atmospheric conditions in general, as to make it unwise to rely upon disease germs shortly succumbing to conditions practically unattainable without fumigation?

A careful study of the foregoing questionaire will doubtless present many phases of the varied theories based on the experiences of our leading sanitarians, and, as good citizens, the laity itself should appreciate the difficulties encountered in arriving at a majority vote. Yet a large majority (about 95 per cent.) of the state health officers, joining in the symposium, favor a continuance of formaldehyde gas disinfection on the practical basis that one cause of spreading communicable diseases (room infection) should not be neglected because another has been found (carriers), whatever the relative importance of the two agencies may be. Destroy bacteria by volatilizing formaldehyde, without ignition, in warm moist air.

Concerning Cathartics.

To the layman, a cathartic is simply a cathartic, and nothing more. One thing is as good as another, as long as it "moves the bowels." To the physicians there is a vast difference between "moving the bowels," and inducing normal bowel action.

For years Strychnine was the stock ingredient of cathartics, for the purpose of stimulating the muscle to peristalsis. But nowadays we realize that Strychnine more often inhibits peristalsis by overstimulation, and that the best stimulant of intestinal muscles is the intestinal secretions.

Pil. Cascara Comp. Robins contains no Strychnine to force the musculature, nor Belladonna to inhibit the secretions. On the contrary it stimulates the flow of secretions and normalizes peristalsis. It is, in fact, a normal Cathartic.

The Bowels Are Secretory Organs.

It is the failure of the secretory function of the bowel, together with a poor bile secretion, which, in nine cases out of ten, is responsible for constipation.

Most carthartics altogether overlook this factor and address themselves solely to a stimulation of the musculature. Some even inhibit intestinal secretion. The result is a rapid, unsatisfactory bowel movement, followed by paralytic reaction.

Pil. Cascara Comp. Robins is a rational therapeutic formula, which promotes a natural flow of secretions, which is, in turn, the physiologic stimulant of peristalsis. Thus a normal evacuation is produced, without subsequent inhibition.

Formula of Pil. Cascara Comp. Robins-Mild.

Cascara	1-2 gr.
Podophyllin	1-16 gr.
Colocynth	1-4 gr.
Hyoscyamus	1-12 gr.

Dose 1 to 3.

Pil. Cascara Comp. Robins-Strong is 4 times strength of the Mild.

ad-12-16

The Efficient Spinal Supporter.

It is the opinion of a large majority of the medical profession that in cases of spinal curvature, no matter how caused or of what nature, a spinal supporter or brace is indicated.

The efficient spinal suporter should be so constructed as to elongate the spine, for all admit that the only way to straighten a crooked spine is to extend it, to separate the individual vertebras and allow as little pressure as possible on the intervertebral cartilages and the roots of the spinal nerves. It should exert a gentle but constant life between the hips, the torso and the axillary folds, thus removing the weight of the upper portion of the body from the spine, transferring it to the hips.

The efficient supporter should be light in weight and comfortable to wear, so that the patient's general health will not be affected by weight or undue pressure anywhere. It should be adjustable that advantage may be taken of improvement in the patient's condition and easily removable to permit of examination and to facilitate bathing, massage and medication.

While giving proper longitudinal support, the efficient supporter should be flexible to allow of movement and exercise sufficient to prevent wasting or atrophy of the muscles.

Plaster of paris casts, sole-leather jackets

and steel braces will, in many cases, bring about satisfactory results, but the shortcomings of this rigid form of support are apparent to the modern practitioner. A heavy and rigid aparatus, through the discomfort it brings the patient, meets with opposition from all parties concerned and is often discarded before being worn a sufficient length of time to demonstrate whatever merit it may possess.

Many cases of spinal irritation and general neuresthenia, without actual spinal curve, need a spinal supporter. Most of these patients will welcome a light and comfortable apparatus but find great difficulty in wearing the cast, jacket or brace frequently ordered by Orthopaedists.

In cases of anterior polio-myelitis, a muscle grafting is or is not done, support of the spine is indicated and should be advised at a very early period.

In cases of spinal tuberculosis, it is especially necessary to remove the weight of the upper portion of the body from the vertebras, and a comfortable, efficient appliance is indicated.

On another page in this issue appears the advertisement of the Sheldon Appliance, which we believe is the most practical and efficient spinal supporter on the market. This Appliance is made by the Philo Burt Manufacturing Company at Jamestown, N. Y.

Clean Living is a periodical published monthly, by John Dill Robertson, Chicago's energetic Commissioner of Health. We have looked through it to pick up some notes, but excepting those of Ochsner on cancer we found very little which we could quote. This is because Clean Living is full of good, homely, sensible articles, exactly what the general public needs, but not exactly the thing which the doctor wants; because he knows them already as well as he possibly could if we were to quote the whole article.

It would be well if each reader would send for a copy of Clean Living, and place it where it was most needed among the laity.

Here is the concluding stanza of one of Corwin's contributions:

Cheer up! ye aging folks, and know the truth;
If you would still retain your fading youth,
And give the devil of disease a heating,
Just use your toothbrush always after eating.

Sander's Eucalyptol.

is characterized by Mr. De Bavay, the eminent analytical chemist of Melbourne, as comparing with the commercial eucalyptus products as well refined and matured brandy compares with raw spirit. Not only does the primary distillation from the selected leaves of the best species give it a unique position, but the fact of it containing a large amount of eudesmol-peroxide imparts to it a superior antiseptic efficiency and freedom from irritant effects. It has great antipruritic power, and wherever there is inflamed skin which causes intolerable itching, as in pruritus ani or vulvae, eczema, simple and contagious impetigo, etc., the following will be of great service:—R. Acidi Carbolici, 15 grs.; Sander's Eucalyptol, 30m; Ung. Zinci Oxidi 1 oz. As soon as the state of the skin permits painting with the pure Sander Eucalyptol will cause rapid improvement especially in all Chronic skin affections. In the troublesome facial eczema of infants from 20 to 60m of Sander's Eucalyptol should be added to the ounce of boracic ointment and applied. Astonishing results have also followed the application of the pure Sander Eucalyptol to inflamed gums and intractable ulcers.

There are now on the market a number of crude oils of eucalyptus which contain the woody resinous extracts of the various species from which they are distilled and which lack the most preliminary refinement. They are generally bought from the crude distillers by trading concerns who are ignorant of what they contain, and are frequently pushed under coined names. It is therefore essential to specify Sander's Eucalyptol if the physician desires to safeguard his reputation and to benefit his patient. adv.

The Best Evacuant.

The greatest care should be used in prescribing an evacuant to guard against the tendency of many cathartics to cause a binding after effect. Pil. Cascara Comp. —Robins stimulates a flow of secretions thus encouraging a normal physiological evacuation; normalizing peristaltic action instead of inhibiting it as so many evacuants and cathartics do.

They contain no Strychnia to poison no Belladonna to dry the secretions or abnormally dilate the pupils—nothing to injure your patients.

They are suited to all conditions, requiring more or less alimentary stimulation. No unpleasant symptoms develop from continued use.

A trial the most convincing argument.

On request, A. H. Robins Co., Richmond, Va., will cheerfully send you liberal samples. ad-12-16

Double Pulley Extension.

It is a tube that will telescope to fit any bed. Curves out 5 inches from the foot of bed. The vertical piece that supports the pullies slides up or down or any place along the bar. The pullies are six inches apart, and by a thumb screw can be tilted either way. The adhesive going direct to pulley from either side of the foot without the block of wood, holds the foot at any angle. A loose pulley hanging to the rope to which a single weight is attached gives even traction on both sides. Can be adjusted to any bed in three minutes. Can be clamped onto any bed in three minutes. You will say, as all doctors do Why did we ever ıse the single pulley?.

A SUPPORT, that will hold the limb in any position and maintain it that way, and at the same time enable you to see and know that the fracture is in position. It is the only ideal way of treating a fracture of the leg or thigh, and is equally helpful in sciatica, hip-joint disease, spinal injuries, or any trouble requiring traction.

For leg or thigh, adhesive strips are placed on either side of the leg, and each strip left to extend eight inches below the foot. The ends are then folded and fastened through rings with a safety-pin. In some cases it may be advisable to use a long posterior splint, in which case pad lightly with gauze and use a two-inch adhesive around both splint and leg. By adjustment made on pulleys by a thumb screw, the foot can be held at any angle or elevation. The direct, even traction on either side of the leg holds the foot without lateral support. You don't have to use a block of wood to hold the adhesive away from the malleolus. You will find you can get all the traction necessary with much less weight than by any other method, as the pull is constant, direct, and without friction. Your patients will appreciate this method of treating fractures. It gives them far more freedom of movement, and the bed pan can be used with very little inconvenience.

You have no uncertainty as to what you are going to do when called to treat a fracture. You don't require the assistance of bystanders in getting boards, nails, hammer, and brace and bit. You are master of the situation—a professional man, not a carpenter.

DOUBLE PULLEY EXTENSION CO.,
Kinsley, Kans.

ad-9-16

A Medicinal Trochar, for the treatment of dropsical effusions, is as important an innovation of modern medical science as the therapeutic lancet for the relief of vascular congestion. The latter office has for several years been performed by aconite. The former function is fulfilled by Anedemin. This excellent preparation is a scientifically balanced and skilfully compounded mixture of Apocynum Cannabium, Urgenea Scilla, Strophanthus Hispidus, and Sambucus Canadensis. It is well enough, in a general way, to call it a Medicinal Trochar, but, as a matter of fact, of course, its action is much more fundamental and thorough than that of a trochar. It strikes at the root of the trouble, and removes the cause of the Aanasarca, rather than its results. It restores the balance between the arterial and venous systems, at the same time improving cardiac tone, and this prevents the accumulation of fluids in the tissue. The Anedemin Chemical Company, Chattanooga, Tenn., will be pleased to furnish physicians wth a liberal working sample of Anedemin Tablets for a thorough try-out. Anedemin is a remedy dependable always, can be pushed and administered with safety wherever indicated. Has no cumulative action. ad-6-16

Campetrodin.

This preparation is an oleaginous solution of Iodine in Camphor. Soothing, penetrating, powerful antiseptic, local analgesic, alterative, ideal surgical dressing.

The great therapeutic value of Campetrodin is attributed to the fortunate properties of its vehicle, which permits the remedy to enter the tissues and blood stream as it were, by osmosis, bringing about results immediate and satisfactory. Wherever the therapeutic properties of Iodine are indicated, Campetrodin can be relied upon, minus the disadvantage of crude Iodine. It relieves local pain promptly without local iritation; on the contrary, it can be applied to denuded or burned surfaces as an anodyne.

As an antiseptic dressing it is equal to any, and without the dangers of most of them. In all cases where prompt absorption or lymphatic stimulation is desired, it penetrates the tissues almost as soon as it is applied to the skin.

Campetrodin (Double Strength) is especially valuable in reducing swollen glands, and relieving obstinate, deep-seated rheumatic and neuralgic pains.

Both strengths supplied on prescription in one, three, and eight ounce bottles.

On request, the manufacturers, A. H. Robins Company, Richmond, Va. will be glad to send samples for clinical test.

ad-4-17

Reliable Biologics.

The Abbott Laboratories, Chicago and New York, are the sole distributors of Slee's refined and concentrated Diphtheria Antitoxin, Slee's Glycerinated Small Pox Vaccine and Slee's Tetanus Antitoxin.

Dr. Richard Slee introduced Glycerinated Vaccine into America. All of these biologic products are made under his supervision, in surroundings insuring purity and accuracy.

Slee's Diphtheria Antitoxin is guaranteed to retain its full indicated unit-strength for more than two years. In concentration, clearness of solution and percentage of solids, it is unsurpassed.

The Health Board of Vacine, Wisconsin, report that out of 345 vaccinations they secured 343 "takes" with Slee's Small Pox Vaccine.

In addition to the Slee biologics, The Abbott Laboratories also manufacture a complete line of Bacterins and Ampules for hypodermic use. You can depend upon the Abbott line.

Literature and prices on request.

"Paraldehyd" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see page XIV this issue) which is an elegant preparation.

Anedemin.

"In the case of patients suffering from acites or from general anasarca, as the result of chronic cardiac, renal or hepatic diseases, the treatment is often very unsatisfactory and disappointing. The existing insufficiency in the action of the organs involved has established a vicious circle which is exceedingly difficult to break, and the constant and excessive strain thrown upon these organs exerts a disastrous effect upon the circulation and the elimination. Not only does the general nutrition suffer, but the actual distress of the patient and, incidentially, of his family, is great. In these cases digitalis usually is prescribed with more or less success; but it has the disadvantage of needing constant and careful watching lest a cumulative action cause an undue strain upon the heart-muscle and negate the beneficial effects. In cases of this kind a combination of well known drugs, evidently scientifically treated, apocynum, strophanthus, squill and elder, as put up by Anedemin Chemical Co., known and advertised to physicians exclusively as Anedemin, has given very pleasing results. The advertisement appears in this issue and will be very interesting to physicians combatting dropsies—liberal samples are supplied when requested.

It is not at all an uncommon occurrence to hear a physician state, when asked regarding his use of mineral oil as an intestinal lubricant, that he has tried it to a greater or less degree and has been disappointed with the results obtained. Sometimes he complains that his patient has taken him very sharply to task because the oil, as administered, leaked. Sometimes he even says that he cannot get as good results from mineral oil as he can from castor oil or cascara.

Many physicians there are who state it as their opinion that the use of mineral oil is more or less of a fad. The trouble is not chargeable to the oil. It is the doctor's own fault. It is his fault because he has not taken the trouble to inform himself as to the why of mineral oil therapy and his fault again because he has paid little or no attention to the how of mineral oil administration. Mineral oil leaks, either because the wrong kind of oil is used or the right kind of oil is used in too large a dosage. Oil which is heavy, i. e. of high specific gravity and of highly developed viscosity, will, as a rule, run through the patient, unless very cautiously given. Also oil of proper, spread, mix and penetration, will do the same, or rather a part of it will do the same, if it is given in too large a dose or too frequently.

Many a doctor will devote more time and thought to the quality and quantity of the lubrication of his automobile, than he does for the lubrication of his patient's intestinal canal. Hence, his failure to get good results and his condemnation of mineral oil when the latter is not to blame. There is, so far as many drugs are concerned, an average dose. In the case of mineral oil there is no such thing as an average dose. The dosage of mineral oil, to be effective, must be an individual dosage, and the dose for the individual case must be carefully determined by the intelligent and cautious administration of the right kind of oil in the individual case. Under any other circumstances the doctor is apt to get poor results or no results and denounce as a fad what is due, to be strictly honest and straight forward, to his own folly.

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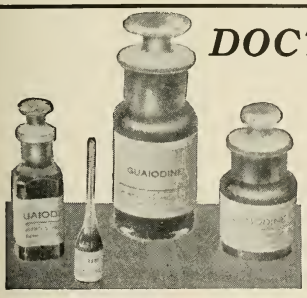

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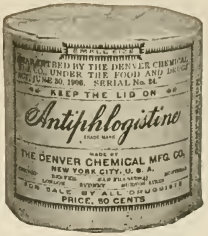

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"Medicine is the noblest Profession and the saddest of Trades"

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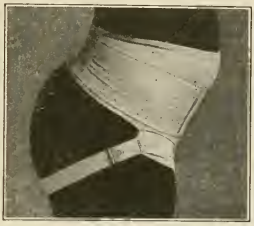

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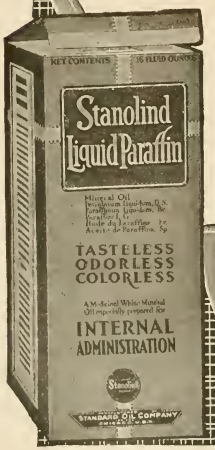

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THE USE OF RADIUM IN MALIGNANT AND NON-MALIGNANT CONDITIONS WITH REPORT OF CASES.*

By Gaston Torrance, M. D., Surgeon to Birmingham Infirmary, W. C. Gewin, M. D., Surgeon to Birmingham Infirmary, and Walter A. Weed, M. D., Radiologist to Birmingham Infirmary, Birmingham, Ala.

Radium was discovered by P. and Madam Currie and G. Bemont in 1898. Its discovery was a sequel to H. Becquerel's observation in 1896 that uranium preparations emitted a radiation resembling X-rays, which had been discovered by Roentgen in 1895.

Some time after Becquerel's discovery Madam Curie made a systematic examination of the electric method of a large number of chemical elements and their compounds to test whether they possessed the "Radioactivities" of uranium.

In testing the activities of minerals containing uranium she found that the activity was always four or five times as great as that to be expected from their content of uranium and from this she concluded that there must be some other substance present more active than uranium. She was provided with a ton of the residues from the State manufactory at Joachimstahl, Bohemia, by the Austrian Government in order that she might carry out her experiments.

She separated a substance more active than uranium which she called polonium. A second substance was found to which the name of Radium was given—the name was well chosen, as in the pure state radium bromide has a very great activity—about two million times as great as an equal weight of uranium.

Radium is continually losing matter and energy as electricity and heat, the temperature of radium salts is always a degree or two above the atmosphere.

The action of radium on the human tissues was not known until 1901 when Professor Becquerel of Paris found, two weeks after carrying a tube of radium in his vest pocket, a severe inflammation known as the famous "Becquerel burn."

Active investigations have been carried on since this time to determine the action of radium on diseased tissues. In 1906 "The Laboratoire du Radium" was established in Paris.

Similar centers of study have been established in other countries since this time.

In using radium externally it is necessary that the rays should be filtered to avoid superficial irritation and burns.

By this we mean that certain rays which we do not wish to use are arrested or absorbed by the interposition of certain substances or a given space. The Alpha rays are arrested by a sheet of letter paper or a distance equal to three centimeters.

Usually filters of lead, paper, rubber or mica are used for the alpha and soft beta rays and silver, aluminum, lead, brass and sometimes gold and platinum are used for the hard beta and the gamma rays.

Physiological Action of Radium.—Douglas C. Moriarta (Med. Record, Mar. 4, 1916), says it will often increase the white blood count to 250,000 in 48 hours, with rapid increase also of hemoglobin. It stimulates all cell life. Increases elimination of carbon dioxide, urea and uric acid. Diminishes the viscosity of the blood and increases the secretion of urine, dilates the blood vessels and invariably lowers blood pressure.

The Use of Radium in Non-Malignant Conditions: Keloids.—Frank E. Simpson (Chicago) J. A. M. A., Mar. 17, 1915, reports several cases completely cured; growth disappeared and all pain left, only small doses were used (six treatments of one hour each for eight days). In another case eight treatments of twenty minutes each extending over sixteen days were used.

He says pure keloids are more easily removed than those in which scar tissue is found, although these can be removed.

Hayward Pinch (Report London Radium Inst., 1914), London Lancet, Feb. 27, 1916, says good results are gotten, especially in recent and in young subjects. In tender and painful keloids the anesthetic effect of radium is generally marked and appears early in the treatment.

Scars and Fibrous Conditions.—Laborde (Presse Medicale, Aug. 5, 1915), reports a case of badly scarred forearm, with a neuritis of the median nerve, with disappearance of the scar and relief of the neuritis which was caused by pressure from the scar tissue. There was

*Read before the Chattahoochie Valley Medical and Surgical Association, July, 1916.

complete relief of the pain and restoration of the extensor function of the fingers.

Trachoma.—Esdra (Policlinico, Rome) April 4, 1915, reports cures in all of twelve cases treated for trachoma.

In the Treatment of Aural Diseases.—W. Sohier Bryant (Trans. Amer. Otological Society, 1914), reports his experience in the treatment of forty cases of chronic ear diseases; hearing was decreased in one case; unchanged in six cases; improved in 33, much improved in 14 cases; restored to normal in six cases.

Exopthalmic Goiter—Dr. Dawson Turner (Royal Infirmary Edinburg), London Lancet February 27, 1916, reports five cases of exopthalmic goiter with marked improvement in all cases. The pulse rate dropped from 140 to 70 and the gland was not palpable in some of the cases after treatment.

Arterio Sclerosis.—C. Everette Field (Med. Record, Jan. 22, 1916), advocates the use of radium in this condition and reports 190 cases with an average blood pressure of 190 and an average reduction of 40 mm.

Douglas C. Moriata (Med. Record, May 13, 1916), reports 56 cases treated during the past year and says there is invariably a drop of from 20 to 60 mm. in six weeks.

Pernicious Anemia.—J. B. Bissell (Med. Record, June 19, 1915), reports a case of pernicious anemia cured by intravenous and intramuscular injections of radium solution, after having resisted all other forms of treatment.

Splenomyelogenous Leukemia. — Renon, Degrais and Tournemelle (Bull. et Mem. de la Med. des Hosp. de Paris, March 20, 1914), assert that the results obtained by them with radium in the treatment of spleno-myelogenous leukemia in the last four years has proven it to be the most useful agent in their hands. The rapidity of the action of the remedy—the prompt subsidence of the splenic enlargement—the very pronounced decrease in the number of leucocytes and the marked improvement in the condition of the patients, were striking features in the effects produced. One woman went through a normal pregnancy several months after having had the radium treatment and prior to that her condition had been very desperate. He reports twelve cases with marked effect on the spleen.

Infections of Tissues and Bones.—J. B. Bissell (Med Record, June 19, 1915), reports several cases of infections which cleared up promptly.

Dr. Wm. H. Cameron (Pittsburg), (Penna. Med Jour., March, 1916), reports 46 cases of infection in English soldiers observed in the London Hospitals during the present war. Most of the injuries were compound bone injuries and a number of them involved joints.

With the exception of four or five cases all were either cured or very much improved by only two or three applications of the radium. There was one case of osteomyelitis of the femur which had stood from October to the following August before having the bone removed, there were three sinuses discharging freely; all wounds healed up within thirty days with ten applications.

Angio-Neurotic Oedema. — Hayward Pinch (Reports London Radium Inst., 1914; London Lancet, Feb. 27, 1915), reports three cases of angio-neurotic, one cured and two greatly benefited.

Arthritis Deformans.—Hayward Pinch (Reports London Radium Inst., 1914; London Lancet Feb. 27, 1915), says very remarkable results have been gotten in some of these cases and especially when recent or peri-articular. Pain is relieved and an increase of mobility is noticed, which enables them to take care of themselves, shave, brush their hair and feed themselves, which very frequently they have been unable to do for years.

Spastic Affections Spinal Cord After Gunshot or Shell Wounds.—G. Bonnus (Paris Medicale, Jan. 1, 1916), reports eleven cases. The best results were gotten in spastic hemiplegia from injury of the cord in the neck—but some benefit was realized in nearly every case. The injuries had been received from two to eleven months before. There had been no improvement for many weeks. Benefit was apparent from the first application, as the spastic phenomina subsided the pain from the inflammation of the roots became less or ceased entirely.

Hemorrhage From Uterine Fibroids and Fibrous Conditions.—J. B. Bissell (Med. Record, June 19, 1915), reports the case of bleeding from an old lacerated fibrous cervix, which was completely relieved by the application of 75 mg. of radium for 18 hours.

Howard A. Kelly (J. A. M. A., Jan. 23, 1915), reports 36 cases from 30 to 67 years of age. This included pedunculated, submucous and interstitial growths. In all but one case the tumor either disappeared or was so much reduced in size as to give no further trouble. In every case of hemorrhage, where intra uterine treatment was used, the hemorrhage was controlled and whereever it was desirable amenorrhoea was produced, he considers it the ideal treatment in young women,

where menstruation is sometimes preserved, and in very anemic cases.

Hayward Pinch (Radium Institute, London, 1914; London Lancet, Feb. 27, 1915), says radium exerts a most beneficial action on menorrhagia, metrorhagia and usually reduces the size of the uterus and where there is obstinate leucorrhoea this too generally disappears.

Radium in the Treatment of Malignant Conditions; Sarcoma of the Long Bones.—Turner (British Med. Jour., Feb. 27, 1915), reporting the work done in the Royal Infirmary of Edinborough, 1914, gives one case of rapid growing sarcoma o fthe periostium of the lower end of the femur of a boy 13 years of age; the treatment caused the growth shrink and become dense; it bled freely when the radium was first introduced and two months later there was scarcely any bleeding and it was so dense that the introduction of the tube of radium was scarcely possible.

Lymphangioma.—Robert Abbe (Med. Record, Aug. 7, 1915), reports six cases, in which two were of the neck, three of the tongue and one of the leg with excellent results.

Frank E. Simpson (Chicago, J. A. M. A., Mar. 25, 1916, reports a case in which the whole right buttocks was involved of 15 or 20 years standing. A number of short exposures (1 hr), were made. A photograph taken 18 months later showed a smooth perfectly healed surface. He concludes that radium is the method of election in the treatment of these cases.

Lymphosarcoma.—Kelly and Burnam (J .A. M. A., Jan. 15, 1916), report a series of twenty cases, most of them in a very advanced stage. Twelve had been operated upon with rapid recurring masses of the neck. Thirteen of the twenty (65 per cent.), are apparently cured. They say "from our experience lymphosarcoma ought not to be operated upon but should be subjected to radium therapy at the earliest possible moment." Several of these cases showed primary extension to the mediastium and these responded as readily as those more superficially placed.

Skin Cancer.—Reports from the London Radium Institute for 1913 show that out of 181 cases of cancer of the face, neck and breast 154 healed; 7 not healed; 3 under treatment; 7 discontinued.

They quote from the work done in 1910, one hundred and fifty-four healed cases and state that of this number 135 remain healed in 1914.

Cancer of the Mouth.—Anton Sticker (Berliner klinische wochen, Oct. 4, 1915), reports 15 cases, in most of which the malignant disease retrogressed without scar or mutilation. Three cases of cancer of the tongue were cured. Seven of the cases were of the lower and five of the upper jaw. In two cases the cancer was a recurrence after several operations. He holds that radium is preferable to surgery in may cases for technical reasons as well as from the standpoint of immunity. Under radio therapy the cancer cells being gradually destroyed and passing into the circulation cause a lively production of antibodies and these protecting substances combat the growth of any new cancer cells.

Cancer of the Bladder.—Hayward Pinch (London Radium Inst.; London Lancet, Feb. 27, 1915), reports six cases with most gratifying results, the disappearance of fungating growths, the arrest of hemorrage and discharge, healing of ulceration and relief from pain are phenomina of frequent occurrence.

W. Ayers (Surgery Gyn. and Obs., Sept., 1915), reports a case of bladder cancer in a man 72 years of age treated by direct application of the radium through a cystoscope, with complete disappearance of the cancer.

Cancer of the Rectum.—Pellizzari (Riforma Medica, March 20, 1915), reports a case in which the rectum was almost obstructed; very adherent; inoperable. The case was treated in 1913 and again in 1914, soon regained strength and weight. Some bulging of the rectum remained but the malignant growth was completely removed.

Hayward Pinch (Radium Inst., London, 1914; London Lancet, Feb. 27, 1915), says the soft annular and vascular type are much more favorably affected than the hard non-annular type with subjacent adhesion and that those in the upper part of the rectum respond more readily than those lower down.

Henry Schmitz (Surgery Gyn. and Obs., March, 1915), reports three cases of cancer of the rectum with apparent cures in two cases and the third refused to continue the treatments on account of some rectal tenesmus.

Cancer of the Uterus and Vagina.—Pozzi and Rouhier (Revue de Gyn. et de Chir, Abdom., Paris, June, 1915), report six cases from Pozzi's service in which hysterectomy plus radium was used. They think vaginal hysterectomy with the radium treatment gives much better results than the more extensive abdominal operations.

R. H. Boggs (Amer. Jour. Roentgenol, 1916, Vol. 3-92), reports 14 cases treated by radium and followed by the X-ray for inoperable uterin cancer. Three have been clinically cured. All were much im-

proved but two. In two others the disease had almost disappeared when his report was made.

E. von Seuffert (Zentral l. f. d. ges. Gyn. u. Geburtsh. s. d. Grenzge b., 1914, Vol. IV, 740), reports 54 cases from Doederlein's clinic of uterine cancer whose treatment can now be regarded as successfully completed. He says these patients are well and are working just as they did before the disease began. He considers the results secured by this method are far in excess of the results secured by any other method.

Cheron and Rubens-Duval (Strahlen Therap. ,1914, Vol. V-1), during the past five years have studied more than 150 cases clinically and histologically. They observed one case of recurrence that had remained well for two years after having been treated with radium. They say that it is generally accepted that complete retrogression lasting more than a year, in the majority of instances, is a complete cure. One hundred and fifty-eight cases are reviewed all of which, practically were inoperable, with complete retrogression in 77 cases; 46 showed no recurrence of which 22 had been free for more than a year; 31 showed only local recurrence which were cured later by further treatments; 12 cases became operable. In only two cases was no improvement shown.

Polubinsky (Russkiy Vrach, Petrograd, Jan. 3, 1915), reports 23 cases; there were nine complete recoveries, 7 of which were inoperable; of the other 14 cases six relapsed after some improvement and the others were lost sight of or gave doubtful results.

Kelly and Burnum (J. A. M. A., June 17, 1916), report 327 cases, this includes borderline cases, those with cancer fixed to the pelvic wall, great massive cancers choking the pelvis and many with general metastases in which the radium was only used for the relief of pain. Over 20 per cent. are apparently cured. In a large number not cured the discharge stopped, the pain ceased and the patients' health was built up.

Hayward Pinch (Report London Radium Inst., 1914; London Lancet, Feb. 27, 1915), says uterine cancer continues to yield most gratifying results, and the effects of radium treatment in inoperable cases are far in advance of those obtained by any other known medical or surgical method.

Henry Schmitz (Surgery Gyn. and Obs., March, 1915), reports twenty cases from A. J. Ochsner's Clinic; practically all of the cases were inoperable but were much improved for about six months and some later died from recurrences. Six of his cases were too recent to report as cured. He says, "I am inclined to the firm belief that radium possesses a remarkable therapeutic action and will become an indispensable adjunct in the routine treatment not only of cancer but also of a great number of other diseases.

S. Flatau (Zentralblatt fur Gyn., Leipzig, Aug. 28, 1915), says he has not operated for cancer of the cervix since 1913 and his proportionate number of women living and cured under radio-therapy alone is larger than he could ever report before with abdominal operations for cancer of the cervix. He says further it is now beyond question that an incipient cancer focus can be destroyed by radium without leaving a trace.

P. Degrais (Annals de Gynecologie et d'Obstetrique, Paris, Sept., 1915), suggest "Cure Therapie" for the treatment with radium as radiotherapy is indiscriminately used for various forms of radiant energy in therapeutics. He has a number of cases who seem to be in perfect health two, three and four years after cross fire radium treatment for cancer.

Kelly and Burnam (J. A. M. A., Nov. 27, 1915), report 213 cases of cancer, 14 were operative cases and the others were inoperative, 203 were treated by radium alone, 57 of these cases were cured and traced; one for 6 yers; 3 for 4 years; 4 for 3 years; 5 for 2 years; 29 for one year; 15 for over six months.

C. Jeff Miller, New Orleans, (Surg. Gyn. and Obs., April, 1916), reports 26 cases that were inoperable or had recurred; 15 inoperable cases had radium alone, of these five cases are apparently cured. He concludes "that the results so far are superior to any other method I have tried in similar cases."

R. St. Clair (West. Med. Times, Vol. 35, 1915), reports three cases of malignancy, two of the uterus and one sarcoma of the leg in which all of the diseased tissue could not be removed, which were treated by radium, all apparently cured—one case for 14 months.

Fabre (Ann. de Gynecol. et d'Obst., Vol. XI, 620, 1915), gives histories of ten cases in which she used radium with excellent results. In borderline cases she thinks the radium should be used before and after operation.

Immunity (Cancer).—A. Clifford Morson, London (Br. Med. Jour., Vol. II, 1915), says experiments with mice show the cancer cell has the power to confer immunity against the same tumor if irradiated with a sublethal dose but this immunity process is lost if the cells receive a lethal dose.

Dr. W. M. Crofton (Royal Academy

Med. Ireland, London Lancet, Feb. 27, 1915), says that radium not only produces a local effect on the cancer but there was also a general reaction and suggest that this is due in part to the absorption of concer cells into the circulation thereby producing a certain amount of immunity.

Can Cancer Cells be Destroyed by Radium?—Cheron and Rubens-Duval (J. A. M. A., Nov. 27, 1915, treated a patient suffering from inoperable cancer of the cervix with radium during November, 1910, and January, 1911, she died of an intercurrent disease 15 months later. All of the internal organs and tissues were removed postmortem and a careful sereal histologic examination made of all the tissues did not reveal a single carcinoma cell.

J .B. Bissell (Surgery Gyn. and Obs., July, 1915), reports eleven cases of carcinoma and sarcoma, in which pathological examinations were made, that the malignant growths disappeared and remained so up to the time of his report was made.

He quotes Gauss' description of the ten pieces of tissue excised at various times while under radium treatment; the first section taken showed adenocarcinoma; a section taken from the same place two weeks later connective tissues and cancer nests; three weeks later the cancer evidencs have disappeared and the microscope showed nothing but benign tissue with epitelial debris.

Sir Thos. Oliver, New-Castle-Upon-Tyne, (London Lancet, Feb. 6, 1915), reports the case of a widow of 62 with recurrent cancer of the vagina and uterus involving the bladder and rectum, in the microscopic examination showed cancer. The case was considered hopeless and as a last resort radium was tried. Six weeks later the growth was much smaller; four months after the treatment was begun the growth had entirely disappeared. Vaginal mucous membrane and septum between vagina and rectum seemed to be perfectly normal. Her bladder and rectal functions are normal, she has put on considerable weight, looks many years younger and looks the perfect picture of health.

Resume of Cases.

Epitheliomata.—Of sixteen cases treated, six are apparently cured, four improved, two, in which it is too early to note results, one improved, but has not returned for further treatment, and one died.

The treatment of epitheliomata by means of radium has, on the whole, been very gratifying. Cases, in which only the cutaneous surface is involved, have responded promptly.

Epitheliomata of the cutaneous surface, if flat and superficial, and not accompanied by ulceration are given from 20 to 100 Mg. hours, using a flat half strength applicator, with no screening except one thickness of pure rubber dam. If the cosmetic effect is to be considered screening up to 1 mm. of silver may be used with a corresponding increase in the length of exposure.

Where there is much infiltration it is necessary to use the tubes of radium in order to increase the intensity and depth of exposure. The deeper the infiltration, the more screening necessary with a prolonged exposure. Often as much as 100 mg. is used screened with 1 mm. of silver, and applied for 24 hours. This is given in four to six hours' exposure extending over a period of four to six days.

Epitheliomata of the mucous surface are much more obstinate than when only the skin is affected. Where the growth is near a muco-cutaneous junction it is desirable to give radium treatment before it reaches the mucous surface, as a much more favorable prognosis may be given.

Melanotic epitheliomata, as well as melonotic sarcoma, are apparently but little influenced by radium. We have had only one case of this type, which was operated upon by the Drs. Mayo of Rochester with a most unfavorable prognosis. At the time radium treatment was begun there were metastases in the chest. The progress of the disease was not checked, but the pain was greatly relieved by the radium applications.

Six of the cases had been treated previously by the X-ray. Of these three are apparently cured, one very much improved, one, unimproved, and one, in which insufficient time has elapsed to note results.

The cases that have shown no improvement were very unfavorable to begin with because of the advanced stage of the disease, or inaccessibility of the growth.

Carcinomata of the Breast.—Of five cases treated radium was used in four of them immediately after operation as a prophylactic measure against recurrence. The other case was one of recurrence two years after operation. She was in a hopeless condition when first seen, and was advised that the treatment would only be palliative.

All operable cases of cancer of the breast should be operated upon before using radium. The progress of inoperable cases is much retarded, and the pain lessened.

Carcinoma of the Uterus.—Of four

cases treated, two are apparently cured, one improved, and one the results not known, as she did not return for further treatment.

The treatment of carcinoma of the uterus with radium has been very satisfactory. Of the two cases that are apparently cured one had a fungating growth of the cervix, which completely filled the upper part of the vagina. This case was first treated by placing 200 mg. of radium element, well screened, in the vagina in close proximity to the growth. The growth was completely gone in about six weeks. 100 mg. of radium was then placed in the cavity of the uterus and left for five hours on three successive days, making a total exposure of 1500 mg. hours. There are no further symptoms and the patient is gaining in weight.

The other case was one of the "excavating type" of carcinoma of the cervix involving the body of the uterus. The tumor had been cauterized by Dr. Baker of Charleston, S. C., who pronounced it inoperable and advised her to seek radium treatment.

At the time she came for treatment the cervix was entirely gone; the uterus was completely fixed, there was considerable hemorrhage, and a very profuse discharge. Since treatment there is no hemorrhage, or discharge, and she is in excellent health.

The case that is designated as "improved" was one, in which the uterus, the cervix, and broad ligaments all were involved, and was in a very advanced stage when first seen. No hope was entertained from the beginning so far as a cure was concerned, but it has been surprising how much improvement has taken place. The subsidence of the pain and offensive discharge has added very materially to her comfort. Also, no doubt, her life will be considerably prolonged.

The other patient was almost in a moribund condition when first seen, and was advised that treatment at best would be only palliative. We have not heard from her since she left the hospital.

Carcinoma of the Rectum.—Of two cases treated one was too far advanced to expect permanent improvement. The uterus and adjacent tissues were a large cancerous mass. The rectum, also, was extensively involved. A colostomy was done in March, 1916, by Dr. C. C. Cody of Houston, Texas, which was performing its function admirably. Radium treatment was given in June, 1916. We have not heard from her since treatment.

The other case is still under treatment. Since beginning the radium applications the pain has almost completely subsided, the bowel derangement is very much lessened, and, on the whole, the patient is much more comfortable.

As this patient is an elderly lady, and is already cachectic, what we hope to do is to control the pain, keep the bowel patent, and thus avoid the disagreeableness of a colostomy.

Carcinoma of the Bladder.—The only case of carcinoma of the bladder treated was a secondary condition following cancer of the uterus, which was referred by Dr. O. P. Board of Birmingham. This patient had a total hysterectomy at St. Thomas' Hospital, Nashville, for carcinoma of the uterus in November, 1914. She remained apparently well until February, 1916, when she noticed blood and shreds in the urine. The bleeding was profuse at times. When seen in April, 1916, cystoscopic examination revealed a rather extensive involvement of the bladder about the trigone. Radium treatment was given by introducing tubes of radium into the bladder. She returned for treatment in June following; at this time the symptoms had entirely disappeared, and cystoscopic examination showed a very decided improvement of the local condition.

Pagets Disease of the Breast.—In one case treated the superficial lesion was entirely cured by the first treatment. The nodule in the breast, which was about the size of a hen-egg, was materially lessened; and a letter from her states that it is still decreasing in size since the second treatment.

Sarcoma of Breast.—The relief in one case treated was only palliative, as there were metastases of the long bones, and mediastinum when she came for treatment.

Sarcoma of Parotid Gland.—We have had two cases which were both in an advanced stage when first seen. One case had been operated upon for tumor of the breast (supposedly sarcoma) about two years ago. At the time treatment was given there were two growths about the size of large marbles near the original breast incision, one nodule about the same size on top of the head, and a large tumor of the parotid gland; and, also, probable involvement of the mediastinum. The radium made her much more comfortable, but did not check the progress of the disease.

The other case has been under observation but a short time. No definite results have been noticed.

Sarcoma of the Intestine.—Of two cases treated one has been under treatment but a short time. She was operated upon in May, 1915, by Deaver of Phil-

adelphia, for a retro-peritoneal tumor which proved to be a fibro-sarcoma. She has a rather large recurrent intra-abdominal mass. Since beginning radium treatment the pain has subsided and, on the whole, the patient is feeling much better. Insufficient time has elapsed to expect a marked retrogression of tumor.

The other case was referred by Dr. W. P. McAdory of Birmingham, who, on February 12, 1916, removed a tumor of the ilium and mesentery. About three feet of intestine was excised. Pathological examination showed the tumor to be sarcoma. About July 1st he was referred by Dr. McAdory for radium treatment. At that time there was a palpable tumor apparently as large as a man's fist. Also he had diarrhoea, and a very foul odor of breath. At times he suffered considerable pain. Treatment was given from July 7th to 13th, inclusive.

He returned for second treatment on August 10th. Patient's condition was much improved; the foul odor of breath had entirely disappeared, bowels were normal, suffered very little pain, and the growth was appreciably smaller.

Goitre.—Two goitres have been treated; one exophthalmic, and one simple.

The exophthalmic goitre improved rapidly. The tachycardia gradually subsided, the gland reduced in size, and the nervousness disappeared.

The pain caused by the pressure of the simple goitre soon subsided, even though there has been no noticeable decrease in the siz of the gland.

Hodgkin's Disease.—Only one case has been treated which was referred by Dr. Gaston Greil of Mnotgomery. Dr. Greil operated on her in July, 1914, removing glands of right side of neck.

Dr. Greil referred her for radium treatment on Jure 27, 1916. At that time she was thin and emaciated. There was enlargement of the glands near the angle of the right lower maxilla, also of left supra-clavicular glands.

After giving radium treatment she seemed to improve for a few weeks. Since than a letter states that she has lapsed back to about the same condition as she was in when treatment was given.

Fibroids of Uterus.—Three cases of fibroids of the uterus have been treated, all of which are clinically cured.

The treatment of fibroids, when not too large and accompanied by menorrhagia or metrorhagia is highly satisfactory.

The cases treated have responded promptly. The discharge and hemorrhage has entirely stopped, and the fibroids have decreased in size.

MODERN TREATMENT OF TOXEMIA OF PREGNANCY.*

By Dr. S. S. Coe, High Point, N. C.

No subject in the range of obstetrics today is attracting greater attention of obstetricians than that of toxemia of pregnancy, and, notwithstanding the great amount of work expended in the past few years to find the true nature of this autotoxic state, we are still ignorant of the source of the poison and the exact nature of its action. It is pleasing however, to note that the dawn is breaking, and we cherish the hope that the treatment of this condition will soon be less empirical and uncertain.

It has been my fortune or misfortune to see quite a number of these cases, and to observe the horrible condition of these truly unfortunate patients. The object of this paper is to stimulate, if possible, the profession to a more careful study, and prompt action in each individual case, and to emphasize, briefly, the efficacy of those generally accepted lines of treatment which seem to have been followed by best results in not only my own practice, but also in the hands of our most eminent men.

In the beginning, I especially wish to emphasize two points:

1. The unquestionable value of prophylaxis and elimination.
2. The importance of early, unremitting and systematic medical supervision of every pregnant case.

Since the intelligent, prophylatic and active management of any disease is based on its etiology and pathology, it is well to refer to what is accepted as the most plausible theory for the cause of this condition.

Toxemia of pregnancy is now generally believed to be caused by a disturbance of nitrogenous metabolism. Ewing, of New York, who has given this subject a great deal of study, was the first to demonstrate hepatic lesions of three clinical manifestations of the toxemia of pregnancy, viz: hyperemesis Gravidarum, eclampsia, and acute yellow atrophy of the liver. He believes that this disturbance of nitrogenous metabolism is a failure of the oxidizing capacity of the liver; and that the proteid derivatives which are normally combined by the liver into the urea, are no longer thus combined, but circulate freely in the blood as poisons, and are in some degree excreted by the kidneys.

Stone, also of New York, in a recent

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paper, agrees with Ewing and says that the changes in the kidney are secondary to the lesions in the liver, he also claims that the conditions known as hyperemesis Gravidarum, eclampsia, and acute yellow atrophy are one and the same disease.

At a recent meeting of the New York State Medical Association the toxemia of pregnancy was disscussed in the form of a symposium, and the consensus of opinion was that "this failure of axidation in the system can best be determined by a study of the nitrogenous partition in the urine, and by observing that the nitrogen passed is not in the form of urea but in various precedents of this substance, the most common of which are the ammonia and amide substances. It is necessary, in order to determine this change in urine, that a twenty-four hour specimen be taken, and it must be known what the patient has eaten; for on a full diet there will be eighty-five per cent. of urea nitrogen in a normal individual; whereas, on a low diet, such as is usually given in these cases on account of nausea the urea nitrogen may fall as low as sixty per cent." Therefore, we observe that this disturbance of nitrogenous metabolism in the liver does not always lead to a diminution in the total amount of urea excreted, but rather to a diminution of the ratio between urea and the total nitrogen in the urine.

In view of this discovery, it appears that we must, when examining the urine, look not so much to the loss of urea as to the excess of ammonia, for the danger signal; and according to Williams, a marked increase of this ammonia co-efficient in cases of pernicious vomiting indicates the existence of a most serious toxemia, which, if allowed to continue will be found to be accompanied by lesions of the liver and other organs which brings to our view a most serious consequence. Under such circumstances, abortion should be induced as soon as the condition is detected, since it offers the only hope of saving the patients life.

While watching for the above mentioned danger signal in the urine, we should not lose sight of the well known clinical evidences which are: high arterial tension, headache, dizziness, gastric disturbances, mental and physical torpor, intestinal toxemia, jaundice and pruritus. Upon the arrival of any of these symptoms we must look at once, in view of the modern findings, to the urine for the ammonia co-efficient, and not alone for the presence of albumen, sugar, and urea eliminated, because a low output of urea has been shown to be an unreliable index of the autotoxic state.

It is evident that with the extreme gravity of this dreaded condition staring us in the face, our responsibility as obstetricians has not been lessened, but rather increased, therefore, it behooves us to be even more zealous in the care of these patients.

As would be expected, the urine is generally scant and its specific gravity high. Only a trace of albumenmay be present while the amount of solids is below the average. Leucin and tyrosin are occassionally found and when found are of the gravest import and are to be taken for prompt and heroic measures.

From the above it is very evident that the urinary analysis ordinarily made in the doctor's office is wholly inadequate for all cases; and so if there be any doubt at all regarding the diagnosis, nothing short of a throughly conducted laboratory analysis will suffice to determine the products of a disturbed nitrogenous metabolism. Personally I do not attempt to do this analysis.

Treatment.

The treatment of this condition begins with the most rigid prophylaxis from the time that pregnancy is suspected. I do not think I put it too strongly when I say that the proper management of these cases necessitates, in some instances, nothing short of a revolution in our medical ranks. Too often we appear to be indifferent to the dangers of pregnancy to an appalling extent, for instance it is often the case that a specimen of urine is not even asked for, and if the patient of her own volition carries a specimen to her doctor's office it is not always tested. And again how many of us appear to be satisfied with one or two urinary analyses, and these in the late stages of gestation.

With the present knowledge of toxemia of pregnancy, I cannot insist too strongly upon the great necessity for the education of our patients concerning the autotoxic state. They should be taught the early symptoms of this disease and instructed to report any such symptoms to their physician "or at least report any deviation from the normal condition." We should always impress upon the patients the importance of keeping the bowels regular, and upon the taking of an active cathartic systematically, whether appaparently indicated or not; and especially should she be told the importance of keeping a close watch upon the total amount of urine excreted daily, for diminished urinary excretion is known to be of greatest clinical value. Encourage the drinking of a liberal amount of water at all times. Seek to remove the prev-

alent belief among the laity that the morning sickness has no special significance and, above all, teach them the importance of consulting a physician as soon as pregnancy is known to exist, and acquaint them of the danger of deferring this duty until the beginning symptoms are present, namely: headache and edema.

It is my rule, and I believe it to be a good one, in all cases to make urinary analyses each month up to the seventh month, and each two weeks thereafter. Any physician who is not willing to make urinary analyses at least that often, regardless of the apparent condition of his patient, is not worthy of his patient, and should not have the patronage of the good people of our country.

Treatment of Pernicious Vomiting of Pregnancy.

All vomiting in a pregnant woman should be regarded with suspicion. If it is only the "early morning sickness" no great alarm is felt, but when the vomiting is persistent, food being rejected at all times, later mucous, bile and sometimes blood, with evident signs of progressive malnutrition, you should get busy in your examination for evidences of hepatic insufficiency and necrosis. Upon the finding of such evidence, active elimination should be vigorously instituted, and, if no improvement is noted, immediate preparation should be made for a complete emptying of the uterus.

Vomiting in the later periods of gestation is much more to be dreaded than in the early weeks, and when occurring it is always suggestive of eclampsia or acute yellow atrophy of the liver, and demands your closest attention and treatment.

Elimination is without doubt our sheet anchor, and of the eliminating measures I wish especially to call attention to the value of repeated colonic irrigation with normal salt solution. In certain cases, however, colonic irrigation will have to give place to intra-venous, infusion or hypodermoclysis, as the system may not be able to absorb from the bowels. When the patient is unable to swallow or retain Epsom salts, this should be given in large and repeated quantities thrown slowly into the colon by means of rectal tube.

The utter uselessness of drugs in this condition with a hope of curing the disease, cannot be too strongly emphasized. For that reason, drugs will not be referred to, except those which are used in elimination; the greatest of which is calomel followed by saline cathartics. These should always be given early and fearlessly.

The danger of delay in the treatment of these cases should always be borne in mind. To wait until the pulse is small and rapid, temperature elevated, epigastric and uterine tenderness present, may mean "the patient's joining the angels," certainly if delay has been protracted until the so-called third stage has been reached. In this stage vomiting may cease, the patient may be able to retain food, and the family may be encouraged to believe that the patient is improving; but, alas! the weak and rapid pulse continues, thirst becomes extreme, cerebral symptoms supervene, and coma is but the beginning of the end.

In concluding this part of the subject, I believe that no man can definitely assert that every case of obstinate vomiting of pregnancy is of toxic origin; yet because so many cases have been shown to be caused by hepatic insufficiency and its resultant toxemia, I am inclined to the belief that we will get the best results if we direct our treatment in all cases toward the correction of hepatic insufficiency without waiting for the classical toxic symptoms to supervene.

Prophylaxis of Eclampsia.

For this condition, I recommend that the same prophylactic treatment as outlined for toxemia of the earlier months of gestation be rigidly observed; for it is well known that the eclamptic tendency is proportionate with the advance of pregnancy and the increased fetal metabolism. No two cases can be treated alike as each case is a case unto itself. In general, one must watch not only for the well known signs of kidney failure, but for the general symptoms of a surcharged circulation, viz.: high arterial tensions, headache, dizziness, etc. If in spite of a strict milk diet (which is the keynote of the preventive treatment), excessive stimulation of the four eliminative processes (bowels, kidneys, skin and lungs), and some form of iron preferably Basham's mixture—if, in spite of this treatment pre-eclamptic condition continues, the induction of labor is unhesitatingly indicated.

As to the choice of method for the induction of labor, I am partial to the bimanual dilatation of the os after the cervical canal has been sufficiently opened by the means of a steel dilator to admit of its performance. Always be sure that the os is completely dilated before attempting to effect delivery.

Active Treatment of Eclampsia.

In the presence o fconvulsions no routine treatment can be pursued; each case must be managed in accordance with the indications present. The writer has suc-

ceeded better with the combined treatment—that is, one that controls the convulsions, eliminates the toxins, and effects the delivery, under complete anesthesia by some method which promises the least injury to the patient.

To control the convulsions, chloroform is the most reliable; next in efficiency (if the pulse is strong and rapid), is veratrus virida given guardly, ten to twenty minims of the fluid extract, hypodermically, followed by five or ten minims every half hour, until the pulse is reduced to about 60 per minute; the convulsions will then be held in check. Should its depressing action go too far, whiskey is a ready and certain antidote. Not only does veratrum control the spasm, but under its use the cervical ring is relaxed, and diaphoresis and diuresis are promoted as well.

Pilocarpine is mentioned only to be unhesitatingly condemned.

Early and active catharsis must be obtained by croton oil or compound jalap powder; or, what is better than all, if you have time to wait, is calomel followed by large doses sulphate magnesia. Colonic irrigation with saturated solution of Epsom salts is strongly indicated in the post-eclamptic stupor.

Oxygen is invaluable as a general stimulant for encouraging elimination through the lungs and for supporting life in the post-eclamptic stupor.

The obstetrical treatment, from the American point of view, is the emptying of the uterus as early as possible, and by the most rapid method consistent with the integrity of the mother's parts, as convulsions generally cease after delivery. And oftentimes as a result of this treatment the patient's life is saved.

As to the method to be employed for hastening delivery, I will not attempt to say, as I believe that you will have to take into consideration the stage of gestation, condition of patient, and facilities at hand, and lastly, but not least, the skill of the physician.

However, the ideal method in the average case is the bi-manual dilatation, because the force is directed from above downward, imitating nature's bag of water, and because there is little or no danger of rupturing prematurely the membranes, and of displacing the original presentation, and, finally, because with the hands traumatism of the uterus is reduced to a minimum.

THE PRACTICAL APPLICATION OF PSYCHOTHERAPY IN DIGESTIVE DISEASES.

By George M. Niles, M. D., Gastroenterologist to the Georgia Baptist Hospital, Moore Memorial Clinic; Consulting Gastroenterologist to the Atlanta Anti-Tuberculosis Association, Etc., Atlanta, Ga.

Let me affirm as a fact, proven by my own experience, that there are but few gastrointestinal diseases, not matter how far advanced, but what psychotherapy possesses for them a beneficent function. Even where a fatal termination is assured, and nothing can be done for the disease, something may be done for the patient, either by diverting the mind, or keeping alive the spark of hope, without which all would be blank dispair. This is the most that can be expected in such melancholy conditions, but because a cure is not in view, the physician should not cease his efforts to infuse courage and cheer into the mind of the invalid. There are several reasons for this. In the first place, there is a possibility that the fatal prognosis is a mistaken one. Many instances are on record in which, after an unfavorable prognosis was given, the patient recovered, outliving the physician who made the prognosis; again, there may be a mistake in the diagnosis, or the patient may possess a recuperative power not realized by the medical attendant. There are many objections to a gloomy prognosis, even under the most unfavorable outlook, and, if the physician will use to the uttermost any little grains of encouragement, while he says as little as possible concerning the less favorable aspects of the case, his influence on the course of the disease will necessarily be uplifting; and he need not utter a single deceptive word.

The Personal Equation.

Some physicians possess a personality which in itself inspires confidence, though any one has within his power the faculty of cheerfulness and optimism. Undue levity in a sick room is of course to be depreciated, and to laugh at a patient's recital of woes, even though they be ridiculous, is nearly always harmful. Ridicule has no legitimate place in rational psychotherapy. A warm-hearted grasp of the hand on greeting a patient; a cheerful and smiling but earnest countenance, betokening a real desire to be of assistance; a sympathetic interest in the recital of infirmities—all these attributes on the part of the physician, will gain the patient's confidence, and will ensure a receptive attitude for every

therapeutic effort that may be later brought to bear. Every one has heard some person remark that a certain doctor's medicine helped him more than some other doctor's, because he had more confidence in the former. This is a simple exemplification of both the influence of the personal equation and psychotherapy itself.

One of the first essentials in entering upon the treatment of a gastrointestinal disease, especially if it be chronic, is a thorough and systematic examination—more thorough, if possible, than any the patient has previously undergone. This has a double advantage—it bestows upon the physician an intelligent knowledge of past and present conditions, and it convinces the patient that a deep interest is being taken.

Another point worth mentioning is the desirability of inaugurating some form of treatment, no matter how insignificant, as early as possible after taking charge of the case. While a leisurely amount of deliberation is necessary and praiseworthy, the viewpoint of the patient is from a different angle, and, if the physician dallies too long, he will lose some of his influence. A placebo can do no harm, and it will keep the patient in a more satisfied frame of mind, until the diagnosis is fully made. When a patient goes to a physician, he expects treatment, and if something apparently tangible is not done very soon, even the most intelligent patient will feel a shade of disappointment or dissatisfaction; and, if less intelligent, may indulge in open rebellio

There are conditions of this sort that confront every physician, and he can, by the exercise of tact and personality, overcome them with perfect dignity and no stultification of his professional standing. First impressions are often lasting, and that the first impressions in the mind of a patient toward the physician may be those of confidence, is important in the extreme.

Psychotherapy in Regard to Diet.

A few patients complaining of digestive disturbances, especially chronic forms, are suffering from excessive eating; rather more from injudicious use of stimulants; while the majority, in my experience, suffer from underfeeding. Practically all of these dyspeptics are on a diet, either self-imposed, or instituted by a physician months or years previously. This diet is often totally inadequate to furnish the necessary calories required by ordinary demands of the body, consequently the body is illnourished, the nervous poise is rendered unstable by physical weakness, and the patient is still less able to fight the inroads of disease. In many instances the hunger pains, the weakness, the emotional outbursts, and the countless vague discomforts which accompany slow starvation, are mistakenly attributed to indigestion, and the diet is still further restricted. These illnourished sufferers have generally developed a sitophobia, or fear of food, and it will require every effort of the physician to overcome this fear. If after careful examination, there is found present a working quantity of digestive juices, and the motility is not radically impaired by organic lesions, the dietary should be generously increased, while strenuous endeavors should be instituted to change the mental attitude of fear into one of courage and confidence. Here is the opportunity for psychotherapy.

I often tell these timorous patients that there is positively enough gastric juice present for their needs; that if they will eat the food as I urge, I will help them with its digestion; and that they need fear absolutely no evil consequences.

In some cases the digestive organs, which have had nothing to do for so long, will for a while rebel, and the patient will suffer from colicky pains and some soreness. This is explained by the comparison of heavy muscular labor performed by one who has long led a sedentary life and the consequent soreness, which will pass away if the exercise is continued. Thus, after the stomach and intestines have adjusted themselves to the new and more liberal regimen, with increased nervous stability, a more cheerful view of life, and a general feeling of comfort and well-being.

As an illustration of nearly every point here discussed, I can cite the case of a lady of fifty-eight years, who came under my care nearly a year ago. She was suffering from an organic, but nonmalignant stricture of the esophagus, which had so reduced the lumen of that canal, that she could only take liquid nourishment and in teaspoonful quantities at a time.

She was thin, nervous, emotional, constipated, suffering from insomnia, and complaining of constant "indigestion." She was habitually taking medicine for the three complaints—constipation, indigestion, and insomnia. Her esophageal obstruction had been incorrectly diagnosed as a "nervous affection," though never explored with a sound.

The stricture was dilated with comparative ease, until a 20 English sound could be passed with facility. She was then told to increase and diversify her

daily bill-of-fare, and a simple alkaline carminative was given her mainly as placebo. She was quite fearful that her stomach would not "bear" solid food, but having won her confidence, and after earnest assurances that she was able to digest what I recommended, she began to eat.

After about a dozen good meals the pains of the supposed indigestion began to disappear, and in two weeks they were gone. She found, to her delight, that she could sleep without her accustomed "Sleeping draught," her fits of crying ceased, her disposition became bright and happy, and with increased weight and vigor came satisfaction with her daily life. It is still necessary to keep the stricture dilated at intervals, but she has gained about 30 pounds, and at present seems in perfect bodily and mental health.

Another important adjunct to the application of successful psychotherapy in digestive diseases, is to look after the small and intercurrent ills as they arise. If the physician will take sympathetic cognizance of the minor complaints, and will make minor concessions in unimportant matters, he will find that he can better exert his authority in important matters. Chronic dyspeptics have more than the usual share of human frailties, and if the physician attempts to entirely revolutionize their habits and customs, he may so upset and discourage them, that they will not make the proper effort to get well or to co-operate with him.

If they can have their way in non-essentials, they will much more readily yield to advice in essentials.

Change.

This one word sometimes solves the whole therapeutic problem. It is noticeable that one's digestion is always good on a holiday, and many people find that they can with impunity eat articles of food while on a vacation or pleasure trip, which would profoundly disturb them at other times. On such occasions the mind is generally care-free, the thoughts are on external objects, while the attention is diverted from the stomach and all pertains to it.

It is not always practicable to send a patient on a protracted vacation, nor can we always arrange a radical change in his business habits. When it is possible, however, the greater the change, within the limits of comfort and propriety, the greater the probable benefit. To take the wearied bookkeeper from his desk, and put him "on the road" for a while; to place the road-worn traveling man in the quiet haven of an office; to send the blase city man out among the green trees and meadows of the country; or to take the housewife, who has grown sick and weary under the monotony of life in some isolated community, and let her enjoy the bustle and sights of a great city for a season—all these, and others that ingenuity or practicability may suggest, will in many instances vary the diseased current of digestive thought and banish the introspection, the self-analysis, the self-pity.

Cheerful Companionship and Environment.

When the man of wisdom said, "A merry heart doeth good like medicine," he uttered a truism that applies to twentieth-century civilization, as well as ancient times. The lack of sociability and good cheer at the table predisposes to indigestion, while the business man who eats his breakfast with his face buried in a morning paper, with not a pleasant smile for any one, who eats his lunch in sour solitude with gastronomic contemplation, is much more liable to the pangs o findigestion than the cheerful one, who intersperses the progress of his meals with pleasant anecdotes or bright and entertaining conversation. If I were asked to advise between a hurried meal with good cheer, or a deliberate meal with anger or disgust as its accompaniment, I would assuredly choose the former for safety.

It is worth the thought and time of the physician to regulate for good, if possible, the environment of every chronic dyspeptic, otherwise many a well-chosen prescription will come to naught in the presence of petty worries and repinings that seem to act with malignant force on the digestive organs.

A confrere recently reported to me the case of a young lady who had long been troubled with nervous indigestion, and who was quickly relieved after changing her boarding place which was rather somber, and which numbered among its patrons some crusty and disagreeable individuals who made her excessively nervous. This physician not only insisted that she make the change, but saw to it that she was established in pleasant and congenial surroundings, and the good results justified his expectations.

The Rest Cure.

This unique method for treating nervous and emaciated invalids we owe to Dr. Weir Mitchell, and, where practicable to carry out, it will sometimes accomplish remarkable results. It consists of a stay of six weeks or two months in a well-organized sanitarium, complete rest in bed for four or six weeks, and

complete isolation in the meanwhile. During the greater part of this time the patient, if a woman, is not permitted to even brush her hair or rise for any of her necessary functions. Everything is attended to by a nurse trained for such care. She is told to cultivate an absolute mental vacuity, and, as far as possible, she should lead a vegetative existence.

During the first five or six days nothing but sweet milk is given, beginning with 24 ounces, divided into eight portions, given two hours apart from 7 a. m. to 9 p. m., and increased to 60 ounces divided into equal portions, and given at the same hours. The milk should be either fed to the patient from a spoon or slowly sipped. Sometimes I give it hot. On the seventh day the regimen changes abruptly, and without transition may be prescribed for breakfast 12 ounces of milk, with bread and butter, honey or preserves. At ten in the morning a full glass of milk. For dinner (or lunch) a full meal of tender vegetables, roast meat, or fish, with bread and butter, some light desert, and a glass of milk. At four in the afternoon give a full glass of milk. Supper (or dinner) may consist of one or two eggs, bread and butter or jelly, and a glass of milk. At nine o'clock a final glass of milk should be taken, preferably hot.

There may be some fullness, and perhaps distention, the first two or three days of this liberal regimen, but if the patient is put in the proper mental attitude, the discomfort is minimized. The physician must dispel the fears of indigestion, and insist upon the necessity of overfeeding in order to quickly get her out of the sad condition of malnutrition. If the patient says she cannot eat because she is constipated, explain that an abundant diet will overcome the constipation; that the residue of the food left in the intestines will stimulate action, and that large eaters are never constipated. If the bowels do not move sufficiently at first, give one or more small enemas, until fecal results are obtained. This may be kept up for a few days if necessary, but, if the proper efforts are made, natural movements will soon be attained. For the distention of the abdomen, which sometimes is annoying for a few days, there may be applied hot moist compresses or turpentine stupes, and, when absolutely demanded, not by the patient but by the symptoms, there may be administered a few doses of some simple carminative. The last-named measure, however, should be avoided, if possible, for it is expedient to get the patient's mind and body entirely away from the thought and habit of taking medicine for the abdominal hyperesthesia.

If the physician will enforce this regimen, and fortify it with positive and courageous psychotherapy, the overfeeding will be well endured in the vast majority of cases.

The effect of this treatment, from the point of view of nutrition, naturally varies according to cases. The first week, when the food is insufficient, does not generally show any increase of body weight. Patients who ate heartily before, grow thin. They may lose in the first seven days from 1 to 7 pounds. Some remain stationary, their previous insufficient diet being equivalent to the milk diet. Only those who are much emaciated succeed in gaining as much as two or three pounds during the first week. The result of the first week is not important, but it is wise to have the patient forewarned, so that discouragement will not add to the other burdens.

At the end of the second week there should be a marked increase in weight and the greater it becomes the more it affects the mental and physical well-being. This increase may vary from 5 to 7 or 8 pounds a week, and Dubois reports one patient in whom there was an increase in weight of 11 1-2 pounds in one week.

As the time goes on, the physician should congratulate the patient on every gain, should keep up flagging courage, and if there is any failure to attain desired results one week, should redouble every effort toward attaining success the next week.

This method of treatment will require time, patience, tact, and co-operation on the part of a good nurse, but, if carried out, the results are most brilliant and lasting.

Dubois says "The physician should not only be a wise man who practises on his patient a sort of vivisection, but he ought to be, before all, a man of heart who knows how to put himself in the place of those who suffer. In the domain of nervousness this fallacious precision of diagnosis is dangerous. I have said that the idea and the mental representation play an important role in the genesis of all the psychoneuroses, and the physician runs a great risk of confirming the hypochondriacal condition of the patient. He should avoid this danger by developing these qualities of the observer in learning to judge his cases as a whole, without the need of exhausting all methods of research."

I might add that pithy proverb, "Observations are not to be numbered, but

weighed."

The psychoanalytic method, as advanced by Freud, has not as yet been applied very extensively to the management of gastrointestinal disorders. It is to be hoped, however, as psychoanalysis becomes more understood and appreciated, that its uses may be broadened, and that it may be found a useful ally to other methods of psychotherapy.

Finally, I might say, that in the exercise of this refinement of therapy, cognizance should generally be taken of tangible bodily ailments, and a certain amount of appropriate medication has its important place even in the exercise of psychotherapy. He, though, who attempts to reach the shifting and evanescent psychoneurosis of digestion by a strict system of dietetics, stomachics, digestations, toncis, or any other adventitious aids, will be foredoomed to failure. Along the line of uplifting suggestion the "isms" and cults have won some of their spectacular victories, and the medical profession has been far too slow to gather from these erratic creeds the few real jewels they contain.

When, therefore, by means of both material and psychic therapy, intelligently and energetically applied, the minds of these sorrowful invalids are taken from their stomachs; when their daily thoughts are lifted out from introspective grooves; when their ill-nourished bodies are furnished sufficient food, and their desiccated tissues laved with an abundance of water—then can the vicious circle be broken, and the psychic aids to digestion resume their normal place in the bodily economy.

THE TUBERCULO-PHYLACOGEN TREATMENT OF TUBERCULOSIS.

By John Roy Williams, M. D., Asheville, N. C.

Tuberculosis has usually been defined as being an infectious disease, caused by a specific micro-organism known as the tubercle bacillus. It seems to me that it should more properly be defined as a disease of multiple infection, in which the tubercle bacillus is found associated with one or more other pathogenic micro-organisms, chief among which being the micro-coccus of pneumonia, the bacillus of influenza, micrococcus catarrhalis, streptococcus pyogenes, and several species of the staphylococcus.

Those who have been accustomed to making microscopic examinations of stained specimens of sputum from the tuberculous, will recall upon second thought that in most cases of open tuberculosis, a mixed infection was easily demonstrable; and in those instances where a mixed infection was not demonstrated, conjecture may permit me to say that the failure in many instances, if not in all, may possibly have been due to faulty technic.

I do not wish to appear as being so dogmatic as saying that every case of tuberculosis is a multiple infection, yet the more I see of the disease the more I lean to that opinion. I believe it can be said with a more or less degree of certainty, that all cases of open tuberculosis, with a purulent or muco-purulent sputum, are cases with multiple infection. I also believe that the acute exacerbations of the disease are caused more by the implanation of a new mixed infection, or to a sudden activity of an already present mixed infection, than to an increased activity of the tubercle bacillus. I also believe that the extention of the tubercular involvement is made easier by the activity of the mixed infection.

Just as does the tubercle bacillus often remain dormant in the tissues, producing none of its characteristic symptoms of toxaemia etc., so may also any mixed infection remain dormant that may be, and usually is, present. At one time it was believed by many that some of the micro-organisms found in tuberculous sputum were non-pathogenic, the belief being based upon the seeming absence of symptoms. I, at one time, accepted that theory, but have more recently (within the past five years) discarded it, and now attribute the lack of symptoms to their condition of latency, rather than to a lack of pathogenicity.

This latency of the mixed infection, just as with the tubercle bacillus, is doubtless due to either a lack of virulence, or to a relatively high degree of immunity. I believe that in all instances a latent mixed infection should be regarded with as much concern as we do the presence of the latent tubercle bacillus. The difficulty in the arrest or cure of tuberculosis when associated with a mixed infection, is too well known to justify any neglect in combating the mixed infection.

During thirteen years close application and study of tuberculin treatment of tuberculosis, I have become thoroughly convinced that a more rapid arrest or cure of the disease is obtained in the tuberculin treated cases, than in those treated without it. I believe that the metabolic products of the tubercle bacillus, as found in any one of the several reliable tuberculins, positively have a curative action. I also believe it to be a

reasonable assumption that the metabolic products in phylacogen, which are obtained from several micro-organisms which are often found associated with tuberculosis, also have a curative action. This belief seems confirmed by the apparent curative action of phylacogen in chronic gonorrheal urithritis, acute gonorrheal orchitis and arthritis, typhoid fever, pneumonia and erysipelas. Why should not phylacogen materially aid in correcting the morbid conditions brought about by mixed infection in tuberculosis? My experience is that it does.

It seems unnecessary to here go into the minute details in pointing out the physiological action of tuberculin in tuberculosis. The literature for years has been full of the subject, and anything I might write would add little or nothing to the already accumulated mass of writings upon the subject. From the lamented Koch down, it is found that practically all of the more painstaking observers attribute physiological actions to tuberculin which point to it being a potent and valuable remedy in the treatment of tuberculosis.

That tuberculin becomes a dangerous drug in the hands of the physician who is not familiar with its proper application is conceded by some, and possibly I am one who would caution the inexperienced physician against trying to use it. Just how many times I have applied tuberculin I can not now say, but it would run well into the thousands, but before I gave a dose upon my own initiative, I had first become more or less skilled under the guidance of experts in its use.

The physiological action of phylacogen is very similar to that of the vaccines; and I believe it is entitled to as high (it not higher) an endorsement by the profession. It creates anti-bodies, making for immunity; it exerts an anti-toxic action; in tuberculosis it seems to hasten the liquifaction of the caseous materials, and improves the elimination by expectoration, and in a little while the mixed infection is found to diminish, and the symptom complex of the mixed infection to disappear. I believe it to be, as its name implies, "a guard for protection" against the mixed infection in tuberculosis, convincing me it is my duty to use it in the treatment of the disease.

The tuberculin which I am using is a stock preparation, as well as is the phylacogen, and tuberculo-phylacogen is a mixture of the two. There is, however, no definite admixture of the two, and I make the mixture only at the time of the injection, being governed by the clinical picture presented by the patient at the time. I am governed by the temperature, pulse, nutrition, age, and any complications that may be present. Bloody sputum, easy or tight cough, pleurisy, severe heart disease, kidney disease, all bear their influence in determining the admixture, the size of the dose and the frequency of repitition.

Tuberculo-phylacogen is giving me far better results in the treatment of tuberculosis than I have ever before experienced. There is a much more rapid disappearance of the fever, and I have gotten this result even when it was not possible to keep the patient at rest. There is an apparent quicker liquifaction of the caseous areas, better drainage by expectoration, lessening the absorption and removing much of the deletarious effects of the absorbed materials from the diseased foci. The tubercular anaemia seems more quickly overcome, even when blood tonics such as iron, arsenic etc., are not resorted to. The appetite, digestion and assimilation seem more favorably influenced, followed by increased weight and strength; and I have been impressed by the very rapid disappearance of the "sleep sweats" with their strength depleting effect.

The sputum seems first increased in amount, but its purulent character is more quickly changed to a mucoid character. In a shorter time than has otherwise been my experience, a diminution in the amount of sputum occurs with a rapid reduction in the number of the tubercle bacilli and the associated micro-organisms. By draining the caseous areas more quickly, fibroid changes are more rapidly advanced bringing about a quicker healing. With the improved blood condition, improved drainage, lessened toxaemia, disappearance of fever, and improved nutrition, the heart action becomes stronger, the circulation brought nearer to the normal, the congested areas clear more quickly, a healthier tone is given to the tissues, and this is augmented by an increased resistance given to the tissues brought about by the anti-bodies created by the specific action of both the tuberculin and the phylacogen.

The beneficial effects of phylacogen given in connection with tuberculin, is much more appreciable in the acute cases than in the long standing chronic cases. It is in the acute cases that there is greatest need for outside help in combating the inroads of the disease. Believing that it is the mixed infection more than the tubercle bacilli which account for the very acute condition presented by many cases of tuberculosis, and believing that phylacogen has more or less specific

action in combating the effects of the mixed infection, I feel not only warranted in using phylacogen, but also feel it my duty to do so.

While it seems unnecessary for me to say that I still follow the accepted principles of the hygienic and dietetic management of the tuberculous, yet I desire to again insist that no case should be neglected in that respect when it is possible to enforce it. The beneficial effects of the tuberculo-phylacogen treatment are more easily obtained when assisted by a proper general management of the patient's life and habits.

The application of the tuberculo-phylacogen treatment requires a very close study of the individual case. There can be no set rule for the admixture of the tuberculin and phylacogen, and one must be guided by the clinical picture presented by the individual case at the time of injection. One will find that the increase of dosage can not be followed that was usual when using tuberculin alone, or with phylacogen alone. Often times the phylacogen may be increased, but not the tuberculin; other times you may increase the tuberculin, and not the phylacogen, while at other times you may increase both or neither.

In conclusion, will say that tuberculosis is a multiple infection, in which the associated infection requires as close attention as the tubercle bacillus; and that phylacogen applied along with tuberculin supplies the necessary aid in combating the mixed infection, and produces better results in the treatment of the disease than I have ever before experienced.

SURGICAL TREATMENT OF ANEURISMS.*

By Jas. F. Robertson, M. D., Wilmington, N. C.

In presenting the following remarks, my object is simply to give a resume of the present day status of the surgical treatment of Aneurisms.

Litigation was fire used in the treatment of Aneurisms by Anel in 1710; subsequently this method has been modified by the following well known Surgeons:

Hunter, Brasdor, Wardrop, Pasquinn and Antyllus.

Anel's proximal litigation is considered the best. The dangers are, of course, from gangrene and embolism.

A. Guinard in the Revue de Chirugie, Paris, for February, 1909, reported fifteen cases of Aneurism of the base of the neck, in which he ligated the common carotid and subclavian arteries of the right side with 100 per cent. operative cures. He advises this operation in all aneurisms of the base of the neck on the right side. In this same communication he tells of a case of aneurism of the left end of the arch of the aorta, in which he ligated the aorta distally. At once the femoral pulse ceased and the parts grew cold, but in less than fifteen minutes circulation was re-established. The head and upper part of the trunk sweated profusely, indicating kidney insufficiency, and the patient died of anuria; due to the great reduction in blood pressure in the renal arteries.

Rudolph Matas, of New Orleans, on March 30th, 1888, successfully performed the first intrasaccular operation on the brachial artery of a man which had resisted both proximal and distal ligation. To quote Matas, the obliterative endo-aneurismorrhaphy is used "in those aneurisms in which the parent artery is entirely lost at the site of the aneurism by expanding into the aneurismal sac throughout its circumference; also those in which the friability or diseased state of the sac wall is such as to preclude all possible use as plastic material (atheroma, calcareous degeneration). In these cases there are always two orifices within the sac separated by variable intervals, and there is no visible outline of the sac. Except in unusual conditions no attempt is made to restore the continuity of the parent artery; the blood stream is interrupted in that part of the vessel which directly opens into the sac, and the arterial orifices are simply closed by suture, thus shutting off the sac cavity from all visible sources of blood supply."

The restorative or reconstructive type is indicated only in the definitely saccular aneurisms, or those in which there is a "well defined and deep furrow or gutter leading from the inlet to the outlet of the sac. This deep groove or fissure furnishes the outline of the parent artery, which is easily restored without obliterating the main channel."

Infection or rupture of the sac demand drainage and healing by granulation.

The advantages of the intrasacular operatio nare:

1. The collateral circulation is preserved.

2. The parent artery is obliterated over the least possible extent.

3. Parent vein is uninjured.

Intrasaccular operations yield only 1.1 per cent. gangrene.

The Moore-Corradi operation is applicable only in those situations where the anatomical relations render other methods impracticable. It is attended with considerable danger; but the ease with which it is performed, the relief from

pain which it affords, and the fact that it does ward off impending rupture, assure it a place among the operations for aneurism.

Finney, of Baltimore, has the largest experience with this method. He has reported twenty-three personal cases, two of which were alive; three, and one years respectively after operation. He uses the finest French laquered needle and silver-copper alloy wire (usually about ten feet). The positive pole is placed in the aneurism and the initial current is ten ma. for ten minutes; then he increases the current 10 ma. every ten minutes up to 70 or 80 ma., after which the current is decreased in the reverse order. The whole operation requires from one and one-half to two hours.

In 1905 Halstead devised an aluminum band which he used to constrict the vessel short of obliteration; thus allowing time for the collateral circulation to become established, and converting the arterial wall into a solid cylinder of living tissue.

This is useful in arteries where disease has rendered them unsuitable for plastic operations.

Special Forms of Aneurisms.

Gunshot Aneurisms.—G. von Bonin, and practically all European surgeons, have written much in the past year on traumatic aneurisms seen in the various theaters of war.

Von Bonin reports twelve cases in which he sutured the vessel; in six, segments of veins were implanted. In eleven of these cases recovery was uneventful. Suture is the method of choice in uninfected traumatic aneurism; if infected we must ligate.

The best time for an operation is between the third and fifth weeks after injury; when the external wound has healed, but before extensive cicatrization has occurred.

Pulsating Exophthalmos.—Martin, of Philadelphia advocates compression by ligature of the common carotid up to the point of stopping the pruit and pulsation, together with the ligature of one or more of the dilated orbital vessels.

Innominate.—Usually is saccular. And is most benefited by ligature of the common carotid and subclavian. This operation yields:

15 per cent. mortality,
30 per cent. failure to benefit the aneurism,
22 per cent. symptomatic cure.

arotid.—The danger of ligature is due to arteriosclerosis. Thirty-two per cent. yield brain complications. This danger can be obviated to some extent by a previous testing of the collateral circulation.

Subclavian.—It is most benefited by proximal ligature or extirpation if of the intrascalenic variety; by distal ligature in the extrascalenic.

For a complete statistical study of the results of treatment of aneurisms in the various localities, I would refer you to the chapters on aneurism in Bernheim's excellent little book on Surger yof the Vascular System.

All surgical measures, however, must be combined with treatment directed to the underlying etiological factors; and must be accompanied by a prolonged period of absolute rest in bed, and a modified and restricted diet.

VENEREAL (CONTAGEOUS ABORTION) INFECTIONS OF ANIMALS AND THEIR EFFECTS.*

By G. A. Roberts, B. S., D. V. S., Veterinary Department, A. and M. College, Raleigh, N. C.

Our observations in various parts of the United States and numerous reports from this country and abroad, for a number of years, have indicated a rapid and extensive growing in the number of abortions in all classes of domestic animals: horses, cattle, sheep, swine, etc., and they are not rare in the human family. But this is not all, for with the abortions, have likewise been noted a great number of retained after-births (fetal membranes) in cattle, due to the peculiar anatomical arrangement here, and a much greater number of sterilities in all classes of animals—again not uncommon in the human family. Also, where the abortions have been most numerous in cattle, a granular inflammation of the mucous membrane of vulva, and sometimes vagina, has appeared invariably. The fact that where any of the above troubles exist, the others being usually present, has led many investigators to look for a common cause.

The evidence points strongly to the possibility of a specific organism, the Bacillus of Bang (B. abortus), as the agent causing in cattle most abortions, early and late, including premature births, still births and birth of weaklings; all retained after-births, with many inflammations of the uterus not attended by visible signs of retained after-birth; a large per cent. of all sterilities, both temporary and permanent. Good of Kentucky, has recently found this same organism in aborting sows. He has named the one found in aborting mares B. abor-

*Paper read before the North Carolina Academy of Science, April 28, 1916.

tivo-equinus.

The part played by the above germ, if any, in the granular venereal disease, certain udder diseases, forms of calf scours and infant diarrhoeas, etc., has not been determined, but in any event, the term "contagious abortion," the name heretofore employed, is very inappropriate to indicate the total effects of this infection. Many animals affected with venereal infection neither abort nor show any other external evidence of infection, while, on the other hand, all of the above determined conditions may result from it.

Formerly, it was thought that the causes for abortion were most as numerous as the abortions themselves, such, for instances, as fright, falls, injuries, green or moldy feed, cotton-seed meal, purgatives, etc. Also the so-called abortive agents as pituitrin, ergot, and gossypium had a like reputation, but none of these agents produce such results when desired, unless apparently by coincident the mouth of the uterus is mechanically opened or opened from result of uterine infection. In this way, some of the above agents may aid in precipitating an abortion, but it is doubtful if any one, within itself, is sufficient cause.

If one will visit an abattoir or large slaughter house and observe the number of pregnant cows killed, after seeing the rough and excitable handling of them in loading, shipping, unloading, slaughtering, etc., he can appreciate the necessity of other factors than fright and injuries for causing abortion. Like observations with many feeds, etc., can easily be made. Again, if one will study the anatomy and physiology of the parts involved, particularly of the cow, he will note the wonderful provision nature has made for avoiding premature expulsion of fetus or embryo from the uterus. He will likewise observe difficulty in accounting for such accident on other grounds than infection or artificial (mechanical) opening of the mouth of the uterus. Abortions can be readily accounted for, however, from these latter causes.

The organism, B. abortus, may be found in the bodies of aborted fetuses and other infected young, and in milk from many of the infected cows. Schroeder and Cotton found the organism in nearly 14 per cent. of 217 samples of milk on the Washington, D. C., market; in 31 per cent. of samples from 35 cows in one herd. In order that abortion shall occur, however, the organism probably must be within the uterus. It may get there possibly through the circulation in the heifer infected prenatally, or from contaminated raw milk or other feed, or get there through the vaginal route at the time, or before conception occurs. Even when lodged here, however, it may not be active enough or be specifically located as to cause sufficient alterations near the mouth of the uterus to allow expulsion of the fetus.

The history of this trouble in many herds show as high as 50 per cent. or more of heifers aborting during their first or second pregnancies, and usually nearly all of the abortions in the herd are during first or second pregnancies. In most instances, the infected cow shows a growing tolerance so that there is less likelihood of aborting the second time, much less the third and rarely the fourth, although they continue to be carriers of the infection. The yearly number of abortions in many herds may be quite variable. Some years there may be no abortions or very few; the next year, all pregnant cattle may abort like a storm wave. The services of some bulls seem to be attended by more abortions than from those of others, indicating possibly a more virulent infection in such cases.

The recognition or diagnosis of this infection in a cow or herd is in many cases overlooked unless numerous abortions occur. As above indicated, however, many infected animals may never or do not always abort. This lack of evidence of infection can readily be illustrated in other infectious diseases, such as in many cases of tuberculosis, especially in cattle, where the infection may exist for a long time without showing any clinical symptoms. As yet, no satisfactory method for recognizing all infected cattle has been suggested, though many of them can be determined by subjecting the blood serum of such cattle to biological tests, as the agglutination and the complement fixation tests. If these tests are re-applied at intervals, most cases of infection can sooner or later be detected.

Retained after-births are only common in cattle because of the peculiar anatomical connections between the maternal and fetal placentae. If abortions occur before about the fifth month of pregnancy there will be little or no retention because of the slight development of the villous projections on the fetal placentae. On the other hand, the longer the fetus is carried, the more developed the villi, and with the resultant inflammatory products of the infection the greater will be the retention.

Sterility may be due to other causes than this infection but investigators in this country and abroad often etimate 90 per cent. or more of such due to venereal

infection. In many herds the losses are much greater from sterility than those resulting from abortions or retained after-births. The total losses from this infection to the cattle industry is not known and difficult or impossible to determine, but it is perhaps safe to say that the losses in dairy herds are greater than from any other single infection.

The alterations resulting in sterility most often occur in the ovary, the uterus or the vagina. In many cases of sterility, it is noted that a persistent yellow body (corpus luteum) exists in the ovary which probably produces naturally an internal secretion inhibiting any egg production (ovulation). Again, many of these yellow bodies are observed in various stages of cystic degeneration, often termination in conspicuous cysts. We have frequently observed other cysts due to enlarged unruptured graafian follicles. Many animals possessing cystic ovaries are nearly always more or less continually in heat (nymphomaniacs) and rarely conceive.

The mucous membrane of the uterus may be so altered as to prevent implantation of the fertilized ovum upon it or the embryo may be dislodged and expelled at a very early period. This latter accident may not be noted by the herdsman and the case often be taken for one of sterility rather than abortion. Many cases of supposed sterility are, in fact, early aborters. The mucous membrane of the vagina may likewise be altered, or at least the secretions from it, so as to destroy the vitality of the male element. Contrary to popular opinion there is very little sterility of the male animal but many dairy-men report 50 per cent. of cows difficult to get with calf, and some report 75 per cent. or more.

A personal investigation was made the past year of fifty herds in North Carolina, numbering 1,700 head of cattle, located at twenty-five points between the mountains and the coast. The results were similar to those obtained from like investigations in other States and countries, viz.: that few herds are free from venereal infection. Laboratory tests were made of 203 samples of blood from cattle. The result was 65 per cent. positive, 17 per cent. negative and 18 per cent. suspicious, making 83 per cent. possible infection.

For comparison of a similar infection in the horse, the following history was obtained of the service of one stallion. During the year 1914, the horse was bred to 113 mares. Sixty-five of these mares became pregnant. Six of them were known to have aborted, and it is possible that others did also. This number makes nearly 10 per cent. abortions. Some foals were born dead, others lived only a short time. Forty-four of the mares were served two or more times and four of them were bred numerous times during the Summer and Fall without result.

Likewise, observations and inquiries indicate similar trouble in hogs. The following letter was recently referred to the Veterinary Department of the Experiment Station: "I have had trouble with my hogs for more than a year. I have changed both sexes of my stock several times. They have free range at pasture, but my sows have trouble with their pigs. Some of them abort their pigs, others give birth to dead pigs and the pigs of others die when a few days or weeks old. Many sows I cannot get to "catch" at all. I brought a male hog from the western part of the State some time ago and have had these troubles ever since."

Treatment for this infection and its manifold results is far from satisfactory, yet a few valuable facts have been determined both as to the fallacy of past suggestions and as to the agencies to be employed in the future. It may safely be stated that since the infection is so wide spread, and the difficulty in recognizing the infection in many cases, that it will be impossible to depend on purchasing only animals free from infection. It cannot, therefore, be eradicated by simply disposing of or isolating all aborting animals, for many animals not aborting serve as carriers of the infection. Also many animals having aborted will not likely do so again. Neither can the disease be controlled or eradicated by the use of the formerly advocated specifics, carbolic acid and methylene blue, administered as previously directed.

Its control, or control of its results, will depend largely upon a knowledge of the sources of infection and other characteristics of the disease. In the first place, it must be borne in mind that the infection may occur in the animal before birth, or after birth from the ingestion of raw contaminated milk or other feed, or from a service by an infected male. Again, it must be borne in mind that abortions are usually confined to the first and second pregnancies and that after aborting once or twice, most of them seldom do so again by assuming a tolerance for the infection.

With our present knowledge, the control or partial control of abortions, retained after-births, and many of the sterilities will depend upon diligent flushings of the vaginas and uteri of the females and the sheaths of the males with mild antiseptics. The once popularity

of the "Yeast Culture" treatment for sterility was probably due to its antiseptic or neutralizing effect. Other agents, as milk whey curdled by the lactic acid organism, one-half per cent. solution of Lugol's Solution and three-fourths per cent. solution of lysol have been recently advocated for such purposes.

Diseases of the ovaries cannot be corrected through vaginal and uterine douches nor by internal administration of drugs. We have, however, apparently obtained some good results, and others have made like reports, from surgical measures. These may consist, where only one ovary inhibiting the function of both, in removal of the diseased ovary or where one or both are affected, of the manipulation and massaging of the affected ovary through the rectum. This manipulation may effect an expression of a superficially located persistant corpus luteum from the ovary, the rupture of a thin walled cyst, or the massaging may aid nature in making or hastening repair. If the animal remains sterile, following a reasonable number of treatments to correct the specific cause for the barrenness, then she should be disposed of for beef. In nymphomaniac mares when the cysts cannot be ruptured, the only satisfactory and humane treatment for the disagreeable habits, is in the removal of the cystic ovaries through an incision of the vaginal wall.

INFANTILE MURDERS.

By Howard D. King, M. D., New Orleans, La.

When the myriad dramatist, Shakespeare, sought to represent the greatest sacrifice a woman could make to a mighty ambition, he wrote those grand lines whose declamation by mimic Lady Macbeth, has caused many a mother to shudder at their power:

"I have given suck and know How tender 'tis to love the babe that milks me: I would, while it was smiling in my face, Have plucked my nipples from its boneless gums, And dashed the brains out."

But it is the impersonation which gives all the force; for stripping the tragic fancy of its attendant horrors, there are thousands of little children die each year in this civilized country to whom it would have been mercy that their lives should so end suddenly—"their silver skins laced with their golden blood." The wailing, dwindling infant confided to an ignorant, careless nurse because of a socially aspiring mother; the "child of misery baptized in tears," whose little life is starved away; the babe who slowly but surely dies from chronic drugging—all these are the witnesses which may well make many a mother tremble lest, for the little life thus blighted here, an accusing spirit should confront her in the Hereafter.

It is only recently that the subject of infantile mortality has attracted much attention; and the plain figures whereby it can be proved, together with the limited range within which the causes are included, have led to much careful sifting of the entire subject. Every man and woman in the United States should rise in protest against the culpable carelessness of which our infantile population is the victim. If anything can be done to diminish this great mortality, it is in the large cities where babes and sucklings die off so from preventible causes, that the remedy should be applied. The high death rate of children is not arrtibutable to the air of the great cities. To preserve the life of a child care does much, and climate nothing or but little. It is amongst poor children that the mortality is incalculably greatest; and when it is considered what they undergo, and the conventional treatment to which they are subjected, we can only wonder that so many escape. Scanty nourishment drawn from breasts whose secretive powers cannot eliminate milk from a half starved frame, and the unwholesome milk of unhealthy cows—such is the nourishment afforded to thousands and thousands of children on this day of an enlightened age, in the civilized United States.

Now, there are three special points to which attention should be directed in seeking to devise some feasible method of diminishing a mortality amongst children which "out Herods Herod."

First, as regards the injurious excess to which artificial feeding is carried on among all classes of society. The mother who can and will not suckle her offspring should be denied the right of that child. The State in the protection of its future citizenry should step in and adopt such a neglected child as its ward.

The next important thing to a supply of maternal milk is the purity of that which forms its best substitute, and is the chief food during the earlier years of life—clean pure cow's milk for every baby in the land.

The ignorance of poor mothers as to the proper care and feeding of their infants is to be combatted solely through Education.

105 Medical Building.

FOREIGN BODIES IN THE ESOPHAGUS: REPORT OF A CASE.*

By Albert Mason, M. D., Waycross, Ga.

The esophagus is about nine inches long, extending from the pharynx to the stomach. It commences at the lower border of the cricoid cartilage, opposite the fifth cervical vertebra, descends along the front of the spine, through the posterior mediastinum, passes through the diaphragm, and, entering the abdomen, terminates at the cardiac orifice of the stomach, opposite the ninth dorsal vertebra. The general direction of the esophagus is vertical; but it presents two or three slight curvitures in its course. At its commencement, it is placed in the median line; but it inclines to the left side as far as the root of the neck, gradually passes to the middle line again, and finally again deviates to the left, as it passes forward to the esophageal openîng of the diaphragm. The esophagus also presents an antero-posterior flexure, corresponding to the curviture of the cervical and thoracic portions of the spine. (Gray's Anatomy).

The average diameter of the esophagus is three-fourths of an inch. There are three constrictions. One opposite the cricoid cartilage, one where the left bronchus crosses and one where it passes through the diaphragm. These constrictions were found by Moulton, who with plaster of Paris obtained a cast of the esophagus in situ, to have an internal diameter of one half inch.†

Of 135 cases collected by H. Burger, 35 lodged behind the cricoid, opposite the fifth, sixth and seventh cervical vertebrae; and 83 behind the manubrium opposite the first four dorsal vertebrae.‡

Generally speaking, then, we may say that foreign bodies are confined to that portion of the esophagus below the fifth cervical and above the fourth dorsal vertebrae; and a majority of all cases in that portion between the interclavicular notch and the cricoid cartilage, a distance of about two inches.

Symptoms of foreign body in the esophagus vary greatly. Indeed, there may be no symptoms at all, even for months and years, until ulceration, perforation, etc., occur as complications. The literature contains any number of cases of foreign body retained for long periods of time. Usually, however, pain and obstruction to the passage of foods are present. In addition, there may or may not be dyspnea, dysphagia, nausea and vomiting. Sharp pointed and irregular shaped bodies may puncture the walls of the esophagus and produce dangerous complications.

Diagnosis. The X-ray is invaluable in the diagnosis of metallic bodies in the esophagus. By its use, we determine the size, shape and exact location. Two exposures should be made, one antero-posterior and one from the side. In non-metallic bodies the diagnosis is more difficult. The X-ray is of no value at all. Palpation through the tissues of the neck may be of value, especially in large bodies. Some may be felt by introducing the finger into the throat, others located by the bougie. Direct inspection through the esophoscope is by far the best method of diagnosis. The use of this instrument by the average laryngologist is to be condemned, however, for this is indeed a specialty within a specialty, and should not be attempted except by the few who are experts and have skilled assistance.

Treatment is ,of course, removal of the foreign body. This should be done when possible by direct esophagoscopy. In the event this is not done, owing to the fact that no endoscopist is convenient, attempts should be made to extract the body by using the umbrella probang, pin-catcher, forceps or any other special instrument devised for this purpose, in preference to doing external surgery; provided, the body has no sharpe edges, is not too large and is not more than ten inches from the upper incisors.‡ Chevalier Jackson holds that esophagostomy and gastrotomy should never be done if esophagoscopy can be practiced, his contention being that, no matter how large, the body can be brought out by the same route it entered.†† Killian removed a dental plate by this method (esophagoscopy) by dividing the plate with the electric cautery and removing the pieces.

The case I have to report is that of V. S., male, age 3, who was brought to my office November 27, 1914, by Dr. W. M. Folks. While playing on the floor eight days ago he swallowed the metal back of a cloth covered button, such as is used on ladies' tailored suits, which lodged in his throat. The usual home methods of swallowing various kinds of foods in an effort to dislodge it were tried without results, the food regurgitating. He complained of pain when swallowing. Dr.

*Read at meeting of Ware County Medical Society, May 4, 1915.

†International Text-book of Surgery, Vol. II, Chapter V.

‡St. Clair Thompson: Diseases of the Nose and Throat, Capter LIII.

‡‡Chevalier Jackson, The Laryngoscope, Vol. XXIII, No 7.

W. R. Thomas saw the case a day or two after the accident and diagnosed a foreign body in the esophagus. He and Dr. B. H. Minchew passed a stomach tube in an effort to force the body through to the stomach. They failed to do this, but evidently changed the position of the button from horizontal to vertical, for after this procedure the little fellow could swallow liquids without pain and seemed to have no inconvenience. At the suggestion of Dr. Thomas X-rays were made which showed the button to be located at the interclavicular notch, in a vertical position bisecting the esophagus laterally. When I saw the patient he was bright and cheerful and other than being a little hungry was apparently none the worse for his experience. Under a general anesthetic, with the head slightly extended, I caught hold of the button with a pair of serrated laryngeal forceps and removed it, the patient making an uneventful recovery.

The button measured 7/8 inch in diameter.

This case illustrates the value of the X-ray in diagnosis and the difficulty of forcing bodies of this character—buttons, coins, etc.—through to the stomach. The stomach tube will invariably pass either in front or behind the body. In this case, while the passing of the stomach tube did not accomplish the desired result, it relieved the distressing symptoms and made the removal of the body comparatively easy.

224-226 Bunn Bldg.

CAREFULNESS AND FRANKNESS BENEFICIAL.

By J. S. Mitchener, M. D., Edenton, N. C.

The article of Dr. Carroll in the February issue of The Journal is indeed unsual. There should be more such manuscripts published in our State journals and district bulletins, as the larger publications are a source for scientific literature. I once attended medical society meetings in one of our cities in which the foremost clinicians often met and admitted their errors. Brown, of Saranac, says, "There is only one man who has never made a mistake—the student just entering the clinical aspect of his training." The maxim truly holds good with the physician—"We learn more by our wrongs than by our rights."

It seems to me a most beneficial part of our county society meetings to be lost in that its members do not give the profession a brief outline of their puzzling cases, and how they finally arrived at a correct diagnosis. The principle of not being self-confessing is narrow. Such is indeed far-reaching in its effect. It can be the instrument for changing a successful practice into one useless and a failure. It will add to your mortality list, and lower the value of death statistics.

In a brief and limited practice of nine months I have made many mistakes, some of which I have found out, I am thankful to say. However the fact would have made no difference in the ultimate result if I had always remained ignorant. My first error which I learned of has impressed upon me very much my training. This I give:

M. K., age 18 months. First seen at my office July, 1915. Complaint: "Breaking out on cheeks." Diagnosis, eczema rubrum. Local medication prescribed and father advised to have mother report to me for dietetic instructions. About ten days later was called to see child at home. Mother gave history of irregular feeding and the eczema having been present for some time, improving somewhat occasionally under medication. Present illness: Few days previous the child began to be feverish and to vomit. Five or six movements of bowels a day. Physical examination, suggestion of previous eczeGave 6 1-10 Hydrag. Chlor. Mit. powders abdomen negative. Temp. 100.5. Pulse 120. My diagnosis had been made previous to examination as a "feed case." Gave 6 1-10 Hydrag. Chlor. Mit. tablets and dietetic and hygienic instructions. At my second visit the mother reported that the child's mouth was sore. I noted tonsil enlarged, slight ulceration and suggestive membrane present. No glandular enlargement. Culture taken. Local application made and mother encouraged to strict conformity to dietetic advice. Culture reported negative. Under local and dietetic treatment the vomiting and diarrhea began to cease in four days and on the twelfth the child was discharged much improved and gaining in weight. She has been seen one time since for a cough. My diagnosis was correct but I should have begun treatment of the pathologic tonsils at first visit. The fact that the pharyngeal lymphoid tissue is often involved in gastro-intestinal entities had been overlooked. My examination had not been thorough—the most frequent and the most dangerous of all errors.

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EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE, N. C.

ANNUAL OPENING OF THE MEDICAL COLLEGE OF SOUTH CAROLINA.

The eighty-eighth regular annual session of the Medical College of the State of South Carolina began its regular duties at Charleston, S. C., September 28 with a good attendance of students and a faculty and material equipment as well, strengthened to a degree that enables the old college to make most favorable comparison with the regular institutions of the metropolitan cities of the country.

More than two generations ago there were strong, forceful, and accomplished men of medicine and surgery in the famous old Southern city by the Sea whose connection with the college gave it a standing and a character easily recognized as among the first, and its diploma was everywhere accepted as indicating a degree of attainment in the medical sciences equal to the medical schools of our more populous eastern centres.

With the determination on the part of the leaders of medical thought more than dozen years since to reconstruct the teaching of medicine in American colleges came the imperative necessity for more elaborate equipment, more laboratories and of improved quality, larger hospitals with more complete facilities for clinical study, and teachers, in part at least, whose entire time could be given to their college duties, including preparation and further study of their respective branches.

Again the growing branches of specialism and increased clinical instruction, made necessary too, the addition of many new members to medical faculties. As a result of the work of our leaders in medical instruction we have scarcely more than half the number of medical colleges in existence now that were open to receive students fifteen years ago, but we have immensely improved facilities for instruction in all departments of scientific medicine and surgery. Notwithstanding the decrease in the number of schools of medicine, there has been an actual increase in the number of medical teachers, and with the determined stand taken relative to having everywhere in schools of medicine instruction in the rudimentary branches given only by whole-time teachers, better teaching is done. Naturally all this has cost money, and cities, states, great universities, and private corporations, engaged in the business of operating colleges of medicine have fully awakened to the fact that from twenty-five to one hundred times the investment in facilities that were deemed permissible a score of years past, is now absolutely essential to being permitted to stay in the field of medical education and graduate doctors. The years of attendance have doubled, and the total expense incident to securing a medical degree has increased to the average young man or woman essaying equipment to practice medicine or surgery in the United States to probably four times as much as it was two or three decades since.

The smaller schools have wisely consolidated or discontinued, the purely commercial propositions have almost without exception lapsed into innocuous desuetude, while institutions having governmental influences behind them have greatly increased their demands for betterment with successful results, until today a calm survey of the medical colleges of this country will perhaps warrant the statement that are now equipped for turning out a finished product of medical men and women possibly the superiors in the main for the practical work of everyday medicine, to any other nation in the world.

In this great movement upward the South has not lagged one moment, and to those who have kept pace with the growth of Southern medical teaching and colleges, it has been highly gratifying to witness the tremendous strives forward by our leading Southern medical schools such as Tulane, Vanderbilt, the University of Texas, the new Emory University in Atlanta, the Virginia College, and by no means last or least, the old Medical College of the State of South Carolina. Recognizing some years ago the imperative necessity confronting the old college in Charleston of securing a greatly increased financial support as well as more elaborate equipment, Charleston doctors led the way and were than nobly assisted by their graduates over the state in securing the taking over by the state of the old college, the making of liberal appropriations of money by both the state and the city for securing larger buildings, and improved hospital facilities, with annual appropriations sufficient to place the teaching faculty in its proper attitude in a modern medical school. All this has been successfully done, and the old college, rich in its inheritance of illustrious tradition,

situated in a community in which four years of residence would itself add much to the education of a young man, faces the future smilingly, offering which it now does as a Class A, medical college, opportunities equal to the best for securing a complete medical education, and more especially opportunities to best fit the average young man of the South to understand, to know, and to successfully cope with the disease entities incident to the people of the South.

The South is a great section of this splendid nation of ours, and in the match of human progress its men, and its women, are ever found equal to the full measure of every duty or responsibility confronting us, and in medicine and surgery, alike practice, performance and teaching, our people will continue to keep fully with the pace of human advancement.

J. H. W.

THE MAN-MACHINE.

The study of Anatomy and the application of material remedies to correct material defects have progressed so far during the last half century that we have become a profession of surgeons. Johns Hopkins was not far wrong when, in abolishing the Chair of Therapeutics, she gave as her reason that "as long as all cases eventually came to the surgeon, it was as well to skip the useless preliminaries and take them to the operating table at once." In her brilliant advances Dame Surgery has uncovered very many cases, in which the impossibility of aught but operative intervention accomplishing any benefit was so manifest, that the absurdity of drug treatment could not be gainsayed. So numerous have become the instances of such conditions that might be cited, that one need not wonder that the impression made upon the public and professional eye is that of a continuous process, one without interruptions.

We as physicians are swayed by the waves of current opinion far more than we like to acknowledge. As a body we swing with the pendulum, and far to the side of the center, never coming to rest there. The action of the great Baltimore institution marks the extreme of the swing, and we may look for the inevitable reaction.

Man is not merely a machine. Vitality is not to be measured by mathematical formulas, and human nature is not a matter of chemistry. The Buddhist distinguished between Rupa, the material body, and Jiva, that body endowed with life; as he did between Kama, the appetites of the body, and Manas, the intellectual faculties. The time has come for us to ascend from the study of Rupa to that of Jiva, to recognize the existence of the vital principle, and its influence over the chemical and material elements of our bodies. Far from combating or depreciating the work of the surgeon, we as internists take it as a basis for the advance of our special activities.

Let us place first in importance the lesson so justly and emphatically inculcated by our confrere, that disease must not be suffered to develop into the fixed and incurable stages, but should be recognized early enough to allow of curative intervention. The treatment of malignant growths today may be summed as the removal of everything that may possibly become malignant in time, and this before evidences of malignity shall have developed. So we should demand that we be permitted to do our work before material lesions shall have been inflicted, and tissue elements destroyed that no human power can possibly re-create.

Our study must lie in the field of functional disorder, which we must learn to properly interpret, to recognize earlier, to trace to its causes, and to obviate these. More and more the physician must assume the functions of the family adviser in health, of the sanitarian. The art of diagnosis must be developed from the standpoint of the life insurance examiner, that if therapeusis from that of the hygienist. We must learn to recognize disease tendencies and to give warnings early; and to make them in such a manned that they shall be heeded.

In this we shall find the people ready to co-operate. In this day, with all the duties pressing on men, they can not afford to be ill. It is worth so much more to be kept well than to be cured, that the public stands ready to back us up in the assumption of the position being thrust upon us by the forward movement of the race. We shall stand in the position of proffering to community an insurance against disease, with its perils, suffering and financial losses, which can scarcely be disdained.

To the physician the advantages are many and great. His position in the community becomes one from which he can inculcate the lessons of hygiene, of morality, of good citizenship. His influence must necessarily grow, as he stands forth as the exponent of public and personal right living. Sanitation has extended its field and interwoven itself into those of sociology and ethics,

until they can never again be differentiated. Disease, poverty and crime can not now be considered separately, and he who seeks to remedy the one becomes an authority upon the prevention of all.

The internist need not take knife in hand, or do aught in the way of specialist or mechanical applications, yet he will find himself fully occupied. His will be the detection of ailments for which, when the time for preventive or abortive treatment has passed, he may call the machanician to his aid. The profession will divide into two groups, and of these the internist comes first and holds the reins. The old basison which the profession rested for centuries will be re-established, with full concurrence and harmony of all branches. Each will do work that aids the other, but which that other can not possibly do himself.

Whether there will be a third class, comprising the pharmacists and dispensing physicians, or whether this will be a function of the internists as a body, remains to be seen. Personally we are in favor of a union of druggist and physician that will do away with the silly antagonism between them, and allow both to act in unison against their many mutual enemies.

WATCH YOUR STEP.

We are in the midst of a transition period in therapeutics, this being due to a general attempt to shift the basis of our intervention from the old empiric standpoint to that of positive, scientific application of remedies. It is surprising to know how far we have succeeded in doing this, and in how many instances we can give a definite, valid reason for our therapeutic application of drugs and other remedies. Nevertheless it is not wise to shift one's step entirely until certain of the sound footing of the new. Nor is it wise to give up certain old and well-tried remedies, simply because we cannot explain their **modus operandi.** The remedy may be indeed one, and yet we be unable to determine the manner in which it operates. Here is an instance:

A baby nine months old had been suffering dreadfully from prickly heat. The little one's condition was truly distressing. We suggested to the mother that she place it in a hot mustard bath. This she did and now, the child is well. The mother is very grateful and we feel personally somewhat elated that the remedy which we have used for so many years still held good. But, please don't ask us what is the pathology of the condition and why the mustard bath cured it. If any of our modern, very scientific therapeutists, endowed with all the lore of all the laboratories, will tell how they can deduce the application of a mustard bath for prickly heat we will admit that modern therapeutics has been firmly placed on a scientific basis.

Is it not about time for a new headland to arise, and issue another work upon the action of medicine? It would be exceedingly interesting to compare this with that early, brave attempt, to solve some of the innumerable problems presented to the clinician, to the man who is not satisfied with knowing a thing is true, but who wants to know why it is true.

HEMOGLOBINURIA.

In the **"American Journal of Clinical Medicine,"** Hollman describes a case of blackwater fever occurring in the jungles of Guatemala. The treatment, while rather of the shot-gun principle, had one merit in that it succeeded. This consisted in calomel, bilein, followed by epsom salts, quinine 1 to 2 grams once a day, copper sulphocarbolate 1 grain a day in four doses, arbutin and lithium benzoate 1 grain each every two hours, strychnine arsenate 1-30 grain, and an anemia and chlorosis granule.

After the recovery which required fifteen days, the patient had several relapses, and was kept for a long time on the epsom salts solution, two ounces, with 6 grains of copper sulphocarbolate, in ten ounces of water. Of this he took a spoonful three times a day. The notable point in this outline is the beneficial effect during convalescence of keeping the bowels clear and disinfected by the use of the copper salt. This goes to confirm the writer's opinion, that a cause of this malady is to be found in the intestinal canal. The benefit which invariably accrues to what was formerly called unloading the liver, really emptying the alimentary canal of its direct effect upon the fever as to its destroying this focus of infection. Quinine is a protoplasmic poison, and the fact that it tends to break up the red blood corpuscles has lent aid to the argument of those who object to its application in malarial hemoglobinuria. It seems to be a choice between destroying these essential elements of our being or put ting the quietus on the plasmodia. This lends eight to the contention of those who claim that the arsenate of quinine supplies us with a remedy that fully meets the need. One grain of the arsenate equals therapeutically fifteen grains of

this sulphate; while the deleterious influence upon the red blood corpuscles is only that of the one grain of quinine. Arsenic has always been held the first succedaneum of quinine and of late it has developed unsuspected powers in other maladies dependent upon animal parasites. The control exerted by various arsenic compounds over syphilis and sleeping sickness, both due to animal parasites, would justify an extension of its field experimentally to malaria even if there were not a vast body of clinical testimony to its virtues already in existence.

Momentous indeed is the discovery that enables us finally to reply to the question—where does the mosquito get the germs which he transfers to man? From man himself—the hitherto unsuspected source of his own infection. Man carry the plasmodia over from season to season, and infect the mosquito, who passes it along to other humans. Pass the inhabitants of malarial districts under the inspection of the laboratory and ascertain which of them is carrying the germs—then eradicate these by the administration of a sufficiency of the cinchona alkaloids, and let all this be done during the intervals between malaria periods. In each district thus treated we exterminate the malady, and henceforth only imported cases are possible there. Each of these may be protected against mosquitoes, and the affection that has occasioned such widespread disaster all through the fair southland, is a thing of the past. No longer will ours be known as the malarial belt, nor will any future Billings arise to taunt us with cachectic bodies and stunted intellects. Relieved of this incubus, the South would begin to be known for what she is, the garden spot of the earth. Her vast natural resources would be developed, and her fertile fields teem with a wealthy, healthy population. No political revolution ever worked such a momentous alteration upon the conditions of any race or country as this would do. All that is required is that we should put into practical operation the knowledge we now possess, and which we have the right and the power to use.

W.

THE NEGRO PROBLEM.

The Medical Standard for July contains an exceedingly interesting symposium on the negro question. It is edifying to see how many different people, in various parts of the country, are ready to express themselves, with scarcely any thought and very little knowledge of the subject.

As an instance, one and all recommend as a principal opening for the negro, the acquisition of small farms. If there is anything calculated to stagnate thought, in a race as yet but slightly developed, it is the isolated life of a small farm. The United States of America contains no nobler race, none whose earlier years were so full of promise, as that of the hardy pioneer stock who peopled the Allegheny mountains from New York to Alabama. Yet the life on the small farms has produced the Kentucky feudist, the crude, illiterate, child-like mountaineer. All over the country and all over the world, the rural resident is the byword of crudeness, simplicity, stupidity. Take a resident of the New York Bowery, and if you want to fight, call him a farmer. It does not seem possible than any worse advice could be given to the negro, than that which encourages him to join the rank of this unprogressive class of people.

As to the proportion of unmixed blood in the American negro, the authorities differ widely. One states that the United States, among twelve millions of colored citizens, contains not over one thousand native Africans or their immediate descendents. Some claim that fifty per cent. of the negroes are of unmixed African blood, and other estimates have not nearly so large a proportion.

Another striking example of lack of knowledge, thought and observation, is found in the statement, which is practically universal, that the African negro is susceptible of development to the same extent as all other races of human beings, with adequate education and training.

One might ask, if the negro is capable of development in this manner, why has he not developed? Why do his alleged friends claim that he is developed, and yet keep up the continual cry for fair dealing and for help? Why is it that, after half a century of freedom and free schools, the negro should still be asking for help? Why has he not helped himself in this time? Why does he complain of certain occupations being closed to him? Had he been of the same capacities as the Caucasian, he would have found other avocations for his industry. Why this enthusiasm for the negro, when the most ignorant could scarcely say that he has been so hemmed in, cribbed, cabined and confined, as has been the Jew? Yet, look what the Semite has done, in the way of finding avenues for his activities.

This question of the identity of all

races as to capacity for development, seems so very easy of solution by a little observation and thought. Do we not realize that we have good reasons for looking to each of the white races for different degrees of possibilities of development? Who expects the same thing from the Slavonian as from the German, the Irishman, the Swede, or holds the Armenian to the same strict accountability as the German, the Englishman or the Scotchman? With every one of the multitudinous peoples who throng to America, we survey them, ask about their nationality, and decide what occupations are best for them and how much we may expect from each. We would say that it was the height of injustice to expect the same from all of these, were we not aware of the fact that a still great injustice suggests itself, when we demand of the negro the same strict accountability we do of the white American.

The point which impresses the present writer most forcibly in this discussion, is the injustice to the negro himself, when, after the Civil War, we placed the franchise in the hands of the negro, and flung him into the troubled sea of Southern politics, the results are too well known to require description. The Civil War itself left no such rankling in the southern heart as did the period of reconstruction. The breaking of negro supremacy at that time was not a matter of choice but of necessity. Life under those conditions became impossible.

The writer's observations of the negro as to the possibilities of his development, began when he had under observation several negroes at college. He then learned, as every man in the classes at that school did, that the negro was not the same as the white man. The tasks presented to him, which practically every white surmounted, the negro was as unable to accomplish as the man without arms would be to wind a watch or sew a seam. The mental equipment for the accomplishment of such tasks was not there. This does not apply to the mixed breed, one of whom at the school in question developed such oratorical powers as subsequently landed him in the United States Senate. The pure-blooded negroes, in their orations and essays, presented a condition which could easily be summed in the words, "sound without sense."

I am firmly of the opinion that isolation on a small farm is the very worst thing that can be done with the negro, even worse than his congregation in large cities; and that the true solution of the negro question will eventually be found to lie in the development of small household industries, that can be accomplished best by an aggregation of the negroes in the smaller towns and cities. This would allow the vast development which comes from free intercourse with numbers of one's own fellows, removing at once the monotony of the farm. Begin with wood carving and clay modeling; and were a Michael Angelo or a Cellini to develop in the negro race, no one would be more ready than the writer to give him his due meed of praise. Encourage him to develop individuality, to follow the lines most natural to him, rather than to slavishly tread in the footsteps of the white. Imitation never results in the highest development. Designate a fact as the "negro Burns," and you stamp him with the stigma of inferiority. It is industrial development, not emotional, the negro needs. I take him a good toy maker, or raiser of possums, or of artichokes, rather than a broadcloth clad pulpit orator. When this truth is generally comprehended race antagonism will have ceased and the negro's feet will be firmly planted on the ladder of progress.

EDITORIAL NEWS ITEMS

Dr. Chas. Adrian Julian, of Thomasville, N. C., has returned home after a short post-graduate trip to New York City.

North Carolina.—Drs. E. Reid Russell and Eugene B. Glenn Asheville, N. C., have returned home after a short post-graduate stay in Philadelphia.

Dr. Thomas M. Green, Wilmington, N. C., announces that after December first, Nineteen Sixteen, he will limit his practice to General Surgery and genito-urinary diseases exclusively.

Dr. S. A. Austin, Waynesboro, Va., was recently indicted by the grand jury charged with having caused the death of Mrs. Arlene Austin through a criminal operation with resulting death from septic peritonitis.

Dr. George Schenck, Norfolk, Va., a recent graduate of the Medical College of Virginia, and son of Dr. Powhattan Schenck, Norfolk's efficient health officer, who has been resident physician at the Riverside Hospital New York City, for more than a year, has resigned to become house surgeon to the Woman's Hospital of New York City.

Dr. J. E. S. Davidson of Charlotte, N. C., is in New York City, taking a post-graduate course at the New York Polyclinic Medical School and Hospital.

Dr. William J. Hoskins, Roanoke, Va., died October 22, 1916, in El Paso, Texas, after a lingering illness. A young man of promise ,his early death ending a career that bade fair to be one of usefulness in the profession.

Dr. S. P. Guerrant, at Roanoke, Va., October 28, was bound over to the February term of federal court charged with violation of the Harrison Anti-Narcotic Law. Several witnesses were produced in court by the Government authorities testifying to being drug addicts and to having procured considerable quantities through the physician. Bond was given and the case continued.

Dr. I. Wellington Faison, the distinguished paediatrist, Charlotte, N. C., as a delegate designated by Governor Locke Craig to attend the American Association for the Prevention of Infant Mortality which held its annual meeting in Detroit, Michigan last month. Dr. Faison more than once electrified the large audience with his masterly oratory.

Dr. R. G. Wyatt, Richmond, Va., who has been resident at the Stuart Circle Hospital in that city for the past two years will engage in private practice in association with Dr. M. L. Anderson, 928 W. Grace Street. His place at the hospital will be filled by Drs. Charles Phillips and B. E. Rhudy two recent graduates of the Medical College of Virginia.

Dr. E. C. Register, Charlotte, N. C., was the recipient of numerous friendly attentions from leading members of the profession during his recent trip North to preside over the annual session of the American Medical Editor's Association. En route to New York he was the guest at two dinners in Philadelphia, in his honor one given by Dr. Taylor and the other the courtesy of Dr. Chas. E. M. DeSajous, both gentlemen eminent in the world of medical literature.

Furness, Withy & Co., Limited of Newport News, Va., require a limited number of physicians for Steamers plying between Newport News, Virginia and England and the Mediterranean. It is a nice experience for any physician or surgeon—and the salary is very attractive. If interested, communicate with the above firm of Furness, Withy & Company, Limited, Newport News, Va.

Wanted: Interns for the Norfolk Protestant Hospital for a service of one year to begin immediately; hospital offers detailed teaching rounds and teaching clinics, together with operating work during senior servicee; no salary is offered; only well trained men from good schools are acceptable. Mail applications to Superintendent Norfolk Protestant Hospital, Norfolk, Va.

Dr. E. J. Haller, Marion, Va., died suddenly of heart failure at his home October 10, 1916. He was in his seventieth year and the last representative of a family prominent for many years in that section of the Old Dominion, a capable physician, a useful citizen, and a man greatly beloved in the community he served for so long a period as professional adviser and friend of humanity.

Dr. Robert C. Bryan, Richmond, Va., after spending some months in the service of the Allies in hospital work in France has returned home and resumed practice. His recent lecture to the Virginia State Medical Society on his observations abroad coupled with a strong plea for preparedness on the part of our Government was an enjoyable feature of a most attractive session. Dr. Bryan was commissioned some time since an officer of the U. S. Army Medical Reserve Corps.

Dr. Lawrence Y. King, Florence, S. C., died in Richmond, Va., September 30, 1916 at the age of forty-five years. Dr. King had been in ill health for some time and had gone to Richmond for operation, growing worse **en route** and passing shortly after his arrival in the city.

He was educated at the Citadel in Charleston, S. C., graduated from the Louisville Medical College in 1891, and was married to Miss Agnes Kuker who with six children survive him.

At Raleigh, N. C., October 13 Chief Justice Clark received on behalf of the State Historical Association from Dr. L. J. Picot, Littleton, N. C., an oil portrait of the late Dr. Geo. W. Long of Graham, N. C.

The gift of Dr. Long's portrait from professional friends to the state of North Carolina is timely and appropriate, and a well deserved kindly remembrance of a cultured nobleman, a capable physician, a true friend as well as an ex-member of the State Board of Medical Examiners an dalso a former President of the North Carolina State Medical Society.

Dr. John W. MacConnell, 1st Lieutenant National Guard, recently on duty with the national troops at El Paso, Texas, has resigned from the army and resumed his former duties as college physician and instructor in biology at Davidson College, N. C. Dr. MacConnell parted with his army friends with genuine regret, and had there appeared to have been the least liklihood of actual war, nothing could have brought him home just now, but the extreme necessity for his presence at the College called him back to civil duties.

Dr. H. H. Whittaker, Hilliardston, N. C., while in apparently excellent health, passed away suddenly at his home, on returning from a professional visit October 13, 1916. He was 55 years of age, and well and favorably known as farmer and general practitioner in Nash County where he had been prominent in local affairs for many years. Graduating from the University of Maryland in 1883 he was licensed the session of the North Carolina State Board of Medical Examiners immediately afterward, and soon took his place among the ranks of the able country doctors of which the Old North State has so many. He is survived by a wife and four children.

Dr. Fenton D. Drewry, Virginlina, Va., passed to his eternal reward on October 29, 1916, at the age of thirty-nine years, following an operation for appendicitis at Norfolk, Va. Dr. Drewry was a worthy scion of a family ranking high in Virginia, a graduate of the Medical College of Virginia, a member of the Virginia State Medical Society, the Tri-State Medical Association of the Carolinas and Virginia, American Medical Association, and a gentleman of the highest character. He leaves a wife, mother and three sisters, and a brother now a student of medicine in Richmond, Va.

Dr. Wm. D. Hilliard returns to Asheville, N. C. Many friends and former professional patrons of the genial Dr. William D. Hilliard, formerly of Asheville, N. C., will be delighted to know that he has returned to his former home and resumed practice in Asheville, N. C. A native of the mountains of North Carolina, Dr. Hilliard for many years enjoyed one of the choice practices of the famous mountain city, when a few years since business arrangements made it advisable for him to remove to Mass. where he has since resided. Returning to North Carolina with the firm conviction there is no land so good as "down home in the Old North State," Dr. Hilliard receives a warm greeting from old friends and new alike.

The Value of a Baby's Eyes.—What is probably the record point in damages awarded was reached in a San Francisco, Cal. court October 23 when Judge Murasky sitting in the Superior Court of that state consented to a judgment of $25,000.00 against a midwife for damages sustained by an infant on account of the failure of the midwife to exercise proper care of the eyes of a new born babe delivered under her professional care. "A pair of human eyes" said the judge, "are priceless, and no amount of money this or any other court could allow, would compensate for the loss of this baby's sight."

Dr. J. B. Stoner, U. S. P. H. S., stationed for the past two years at the Marine Hospital, Wilmington, N. C., has returned to Wilmington after a strenuous summer's wor kin the infantile paralysis epidemic in New York City. He leaves shortly to assume the duties of inspector of emigrants at oMntreal, Canada. The duties of his position, filled so successfully during his absence by contract surgeon, Dr. John C. Wessell, Wilmington, N. C., will continue to be discharged by Dr. Wessell. It is thought the federal authorities will eventually at no distant date enlarge the facilities of the Wilmington, N. C., Marine Hospital with a view to making it a center for extensive research work in the study of diseases incident to the Southeastern section of the United States.

Dr. William C. Irby, Laurens, S. C., died at his home October 26, 1916, leaving three sons and a daughter. Dr. Irby was the son of Lieut. Gov. James H. Irby, a citizen of distinction and a lawyer of prominence in the ante-bellum days of the old Palmetto State. He was also an elder brother of U. S. Senator J. L. M. Irby. The best years of Dr. Irby's life were spent in active professional work in Clinton, S. C., and retiring several years since he removed to Laurens. He was a large land owner and ranked as one of the State's most progressive farmers in the latter years of his life. A Mason, a consistent member of the Baptist Church, a man of highest personal character and sterling worth, identified with the best of hi scommunity life and thought, his going is mourned and the recollections of his career a source of inspiration and helpfulness to young men of the State.

New Wards at Biltmore Hospital, Asheville, N. C.—With appropriate ceremonies the new additions to the attractive Biltmore Hospital at Asheville, N. C., the Maternity and Babies Wards, were formally opened on October 16. These two handsome wards are the gifts respectively of the widow of the late Geo. W. Vanderbilt and Alfred Gwynn Vanderbilt, the one the well known master of the famous Biltmore Estate near Asheville, and the other the kindly New York gentleman who helped the women and the children to places of safety while he himself went down in the Lusitania. The two wards are most valuable acquisitions to what is already one of most attractive small hospitals of the South, quiet, unpretentions, but with restful comfort and elegance, all on a single floor with no stairs to climb, and nestling amid a most beautiful grove of evergreens.

Following a short illness Dr. Isaac R. Godwin, Fincastle, Va., died October 1 at his home in Fincastle, Botetourt County, Va., at the age of 79. A native of the county, he graduated at the University of Virginia and later from the Jefferson Medical College, and shortly after entered the service of the Confederacy where he continued as surgeon until captured near the close of the civil war and in carcerated in the famous prison on Johnson's Island. Barring the time of his school days and service in the Confederate Army Dr. Godwin's entire life was spent in his native county where for more than fifty years he was the faithful friend and devoted physician, enjoying the confidence of a large clientele. The funeral services were performed at the Episcopal church of which he was a devoted member. Dr. Godwin is survived by his wife nee Miss Emma Wilson, and three children.

The many friends in North Carolina of the three capable young medical men who went from the State to Richmond, Va., a few years since and established Westbrook Sanitarium for the care and treatment of nervous diseases, have watched with genuine pleasure the evidences of their success, and will join in hearty congratulations to Drs. Paul Anderson, James K. Hall, and E. M. Gayle on the announcement recently made of the opening November 1st of two new additional buildings to the already complete plant of this excellent institution. One of the new brick buildings will be used exclusively for male patients and the companion building for women. These recent additions now make nine buildings in the midst of a beautiful tract of eighty-five acres, devoted to the purpose of the institution, and make it one of the largest private institution sfor the care of nervous disease in the South.

Controlling the Nervous Element in Female Diseases.—Utero-ovarian congestion, traceable to extreme irritability of the local nervous mechanism, invariably requires appropriate antispasmodic treatment. Obviously great care, however, must be exercised in selecting the measures to be employed. Among the sedatives that have been found serviceable, none has proven more effective or given more uniform satisfaction in every particular than Peacock's Bromides. Many clinicians have learned to appreciate the antispasmodic properties of this preparation, and as a consequence Peacock's Bromides have long filled an important place in gynecologic therapeutics. Efficient, reliable and remarkably free from any unpleasant effects, this dependable combination of carefully selected bromide salts is of exceptional utility in female disorders in which the nervous element is prominent. In these conditions, it can be used with every confidence, not alone in its therapeutic efficiency, but what is often quite as important, in its notable freedom from gastric disturbance or other unpleasant effect. A particularly gratifying feature of Peacock's Bromides is its capacity to relieve pain and discomfort without inducing a drug habit, a result which the opiates and so many other pain relieving remedies all too often produce. Peacock's Bromides surely fill an important place in the therapy of the painful ills of womankind.

The local newspapers of Danville, Va., recently published the physicians' Fee Bill alleging it was done by authority of the Academy of Medicine of that city. In In commenting on the table of rates the newspaper stated "wide latitude is given the physicians in many of the items; fro example, major operations may be performed for any sum between $50.44 and $100.00. Between 9 p. m. and 7 a. m. doctors will visit patients at the rate of $5.00 a visit." Just the beneficial results expected to accrue t othe profession by such publication of fee schedules, is not clear to the writer, and it may well be questioned if such publication subserves any useful or helpful purpose either to profession or laity. On the other hand it has been the general experience of the profession that information furnished the laity ned-

lssly, oftimes becomes a plague to bother and annoy members of the profession. Let us hope this is not establishing a precedent that will be emulated by medical bodies in other towns, unless it can be shown such printing in the newspapers of physician's fees is in some way helpful to the doctors or beneficial to the community.

Dr. William P. Brock, at his residence in Richmond, aV., in his eighty-first year of age, passed away on October 19, 1916, after an illness of three months. The funeral services were conducted from All Saints Episcopal Church and was largely attended, the leading members of the medical profession of Richmond participating as pallbearers.

Dr. Brock was of colonial ancestry and a native of the Valley of iVrginia and a resident of Richmond since 1859. Acquiring an academic education at the University of Virginia, he graduated M. D. from the Medical College in Richmond. He served with distinction in the Confederate Army as Chief of Medical Staff to Maj. Gen. James L. Kemper. At the conclusion of the Civil War he resumed practice in Richmond, Va., becoming chief police surgeon, a position he continued to hold until his death.

In 1882 he was appointed Chief Surgeon of the C. & O. Railway and held the appointment during life. In 1892-3 he was President of the National Association of Railway Surgeons.

He married Miss Elizabeth Tyler of Richmond in 1863 and is survived by four children. A Knight Templar, a cultured gentleman of the olden school he passes to his final reward leaving a record untarnished and a fame of which his posterity may well be proud.

Fourth District Medical Association of South Carolina.—The eleventh annual meeting of the Fourth District Medical Association of South Carolina was held in Greenville, S. C., September 1 with more than 100 members in attendance, Dr. C. N. Wyatt, presiding.

Dr. R. E. Houston, Greenville, welcomed the visiting physicians, and cordial response was made by the president, Dr. C. N. Wyatt.

Only a few subjects were considered by the essayists, the Association wisely concentrating its energies on a very few principal topics. Chronis Dyspepsias were discussed from physiologic, clinical, laboratory, therapeutic and surgical standpoint, every phase being full considered by an essayist. The general discussions were exhaustive and distinctly helpful to all present. Ureteral Calculi, Stimulants, and Clinical Reports of Cases of Cerebro-Spinal Meningitis were also subjects of well prepared essays presented during the session.

The next session was voted to be held in Union. Officers were elected as follows:

President, Dr. R. E. Houston.
Vice-President, Dr. C. F. Ross.
Secretary-Treasurer, Dr. J. R. Young.

The Meriwether Hospital.—Recently the following practicing physicians in Asheville purchased 46 2-3 per cent. of stock of the Meriwether Hospital and Training School, Incorporated, including a 60 acre farm:

Dr. Eugene B. Glenn, Dr. C. P. Ambler, Dr. W. J. Hunnicutt, Dr. Arthur F. Reeves, Dr. C. E. Cotton, Dr. E. Reid Russell, and Dr. M. L. Stevens.

At the first meeting of the stock holders, following the purchase, the following officers were elected:

Dr. Eugene B. Glenn, President; Dr. C. P. Ambler, Vice-President; Miss Florence N. Pitts, Treasurer and Superintendent.

The following are Directors: Dr. Eugene B. Glenn, Dr. C. P. Ambler, Miss Florence N. Pitts, Dr. Ben M. Meriwether, Dr. E. Reid Russell, Dr. C. E. Cotton, and Dr. W. J. Hunnicutt.

The directors are making numerous modern improvements to cost in the neighborhood of $5000.00. The dormitory for the nurses will be located on the Ashland Avenue side of the hospital property.

The staff membership is made up of 22 members of Asheville's best known physicians who are specializing in the various branches of medicine and surgery. Since the death of Dr. F. T. Meriwether, the hospital has been managed by the heirs of the Meriwether estate and supported by the staff. It is a general hospital for medical and surgical cases and is open to the profession.

It is growing steadily in popularity and usefulness. After the improvements are completed, it will have a 65 bed capacity.

The staff officers are: Dr. C. P. Ambler, Dean, Dr. Eugene B. Glenn, Sub-Dean, and Dr. W. J. Hunnicutt, Secretary.

"I prescribed Tongaline for two cases of tonsillitis after all other treatment had failed, with such success that both made a rapid recovery."

BOOK NOTICES.

The Cancer Problem. by William Seaman Bainbridge, A. M., ScD., M. D., Professor of Surgery, New York Polyclinic Medical School and Hospital; Surgeon and Secretary of Committee of Scientific Research, New York Skin and Cancer Hospital; Consulting Surgeon, Manhattan State Hospital, Ward's Island; Honorary President, First International Congress for the Study of Tumors and Cancers, Heidelberg, 1906. New York, The MacMillan Company, 1915.

It gives the editor of this journal a peculiar pleasure to review this book. I feel that it is quite difficult to express correctly my very high appreciation of this book. It might not be amiss for me to say that this is partly on account of my very great admiration and friendship for the Author. The volume came to this office while I was in New York attending some of his magnificient clinics. I believe that he is one of the most skilled surgeons that I have ever seen operate, and I have seen surgeons operate in practically every important hospital in the world. Dr. Bainbridge is thoroughly familiar with the literature on the subject of cancer. Not being very familiar with surgery, excepting in a general way, it is my belief that this is the most up-to-date book on the subject that is in the English language. Dr. Bainbridge makes a statement in this book that the deaths from cancer today number at least one-half million annually among the civilized people of the world. He also believes that the disease is increasing with alarming rapidity and affecting ever younger and younger ages. He says, if this opinion of his be true, which is based upon the findings of medical reports, then we have here a problem which, if not solved, bids fair to exterminate mankind as effectually as some earlier satastrophe wiped out the flying reptilian monsters whose fossil remains afford so much interesting food for speculation today. Even if, as is certain, this is too grave a prospect, cancer is nevertheless the one major problem of medicine still defying and real approach to solution, as regards prevention, reliable early diagnosis, or guaranty of permanent cure.Dr. Bainbridge says that the tumor was thought by early observers to be the manifest effect arising from the "roots" in the body because of some constitutional condition. Today we know that the exact opposite is true. The tumor is the starting place, and its "roots" are the offshoots by which it sends out "runners" to the contigious territory, extending further and further, by minute or by manifest passages, far beyond the original confines, until the whole body is invaded.

So, today, the author says, interest in the "cancer problem" has carried it, by one kind of "runner" or another, into every phase of life. Not only is it a topic for discussion in the operating room and medical convention, but in the home, on the business office, in the lecture room, and in the hall of legislation. "Is it cantagious?" "May it be inherited?" "Is it caused by certain kinds of food?" Is it influenced by environment?" "Can it be prevented?" Can it be cured?" These, and many more pointed questions, are being asked by laymen as well as by the profession. How best to answer them, in the light of our present knowledge concerning cancer, is a debatable matter.

Dr. Bainbridge further says that much of the mystery which surrounds cancer, much of the ignorance concerning it, bother within and without the medical profession, is due to the chaotic condition of the literature upon the subject. To acquire dependable information concerning any phase of the question entails tedious search through many books, pamphlets and periodicals. To give a clear, concise, comprehensive, and available resume of the world's work with reference to cancer, its history, distribution, etiology, diagnosis, possibility of prevention and treatment, together with various minor matters, is a most difficult task.

It was a happy thought when Dr. Bainbridge concluded with the development of the widespread interest in cancer that there was a definite need for a book of ready reference, of convenient size, giving in succinct and available form a summary of knowledge concerning the subject. Therefore, this book is needed by the general practitioner, by the specialist, by the intelligent layman, by the lecturer on health matters; in fact, by all who are definitely interested in questions of health maintenance.

While we think the book is quite complete, Dr. Bainbridge does not claim this. Of course it is manifestly impossible, in a volume of the size and scope of this book of 534 pages, to cover the entire field from every point of view. Dr. Bainbridge contemplates getting out a second volume—and the two combined will make a work that will cover the field very thoroughly.

The illustrations in the book are not very numerous, but they are certainly

very appropriate.

I want to congratulate Dr. Bainbridge for giving to the medical profession this interesting and valuable book. The medical profession and especially the surgical world, will appreciate it very much.

A Text-book of Practical Therapeutics. With especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, B.Sc., M. D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania. Sixteenth edition, revised and enlarged. Imperial octavo, 109 pages, with 149 engravings and 17 plates, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

With the appearance of its new sixteenth edition, Hare's Practical Therapeutics enters upon another stage in its long and successful career. By reason of the ingenuity of its plan, the consummate skill with which it has been carried out, and the author's appreciation of the needs of the physician at the bedside, it has stood out conspicuously as a book which has never been approached in its field, and each successive has only emphasized and increased its usefulness.

In the present edition the official preparation of the new U. S. Pharmacopoeia and the new British Pharmacopoeia have been introduced; and every article has been revised in an attempt to bring the text into complete conformity with the views generally accepted by the best physicians of the day.

A Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-book specially adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph. D., M. D., Late Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; and Daniel Base, Ph.D., Professor of Chemistry in the Maryland College of Pharmacy, Department of the University of Maryland. Eleventh edition, thoroughly revised. Octavo, 648 pages, with 55 illustrations, one colored spectra plate, and 6 colored plates, representing 48 chemical reactions. Cloth, $3.50, net. Lea and Febiger, Publishers, Philadelphia and New York, 1916.

The degree of approbation accorded this work by the Medical, Dental and Pharmaceutical professions is shown by the demand which has exhausted ten previous editions.

This comprehensive work answers every need of all who are concerned with the medical bearings of chemistry. The new eleventh edition incorporates the additions to and changes in the new U. S. Pharmacopoeia. A number of changes have also been made involving re-arrangement, addition and deletion of material. The section dealing with non-metals has been entirely re-arranged and much new material has been added; and a chapter on quantitative determinations by volumetric methods has been included in the section devoted to analytical chemistry. In a word, the new edition is up-to-date in every particular and the work continues to be the best manual of chemistry for teachers, students and practitioners of medicine, dentistry and pharmacy.

The Control of Hunger in Health and Disease, by Anton Julius Carlson, The University of Chicago Press, Chicago, Illinois. Price $2.00.

This book contains a summary of the work on the stomach, with special reference to hunger and appetite, carried out in the Hull Physiological Laboratory of the University of Chicago during the last four years. Dr. Carlson, the author, has aimed to present this subject in the light of the entire biological and clinical literature on the subject, hoping that it may encourage more intensive work on hunger and appetite control, particularly in the fields of clinical medicine and comparative physiology, as the work of the past on this problem is not commensurate with its biological, medical and economic importance.

Dr. Carlson says that the complete analysis of hunger may not yield us control over the hunger mechanism, but it is at least the most promising line of attack. The scientist will concede its value to biology, and the physician readily appreciates its significance for rational therapeutics; but the layman may question the practical utility of hunger control to society as a whole, in view of the fact that it has played no role in past evolution. This is granted. But the elimination of many biological correctives by the artificialities of modern civilization calls for rational guidance of all phases of human behavior, including the desire for food. In these times of plenty, overfeeding, with its physiological

penalties and economic waste, is on the whole more prevalent than under nutrition, because of the barbaric indulgence in the pleasures of the table in the absence of the physical stress of more primitive social condition. And when hunger becomes pathologically exaggerated the physician of today knows no remedy; when it fails in disease, he dispenses the "bitter herb" of tradition—and hopes for the best. Hence, when the reader has followed us through these we hope not too technical pages, we believe that he will agree that there is yet much work to be done on the problem of hunger control—work worth doing, co-operative work of the clinic and the biological laboratory.

Looking over this volume has given me a great deal of pleasure. It is a very valuable contribution to medical literature. The book contains 319 pages, appropriately indexed and a very attractive volume—and the architecture of the book is in every way commendable to the publishers. Dr. Carlson is to be congratulated on giving to the medical profession a book of this value.

Pharmacology and Therapeutics for Students and Practitioners of Medicine, by Horatio C. Wood, Jr., M. D., Professor of Pharmacology and Therapeutics in the University of Pennsylvania; Second Vice Chairman of the Committee of Revision of the U. S. Pharmacopoeia. Second Edition. Philadelphia and London, J. B. Lippincott Company. Price, $4.00.

This is the Second Edition of this magnificent and valuable work of Dr. Wood. Of course Dr. Wood is one of the best known authorities on subjects of this kind that we have in America—and he is so well known all over the English speaking world that it is impossible for me to say anything about his writings that would give additional endorsement to this book aside from giving a few facts concerning it.

The continued immanence of the U. S. Pharmacopoeia has delayed the publication of a new edition of this work, as Dr. Wood felt that the appearance of a revision which should not include the changes in the legal standard would work an injustice to many of those who should purchase the book. He says that the general plan of the previous edition has been adhered to, extensive altrations hav been requird not only to meet the changs in the Pharmacopoeia but also to keep apace with the rapid advances in the sciences of pharmacology. The articles on veronal, digitalis, pituitary, atoxyl and salvarsan have been almost completely rewritten and important alterations made to those on potassium caffeine, dionine, ergot, ipecacunha, magnesium, calcium, and hexamethy-lenamine. Some twenty substances not considered in the previous edition have received more or less extensive notice in the present one; among these may be mentioned especially, agaricin, bronmural, apiol, cotarnine, chrysarobin, picrotoxin, homatrophine, aspidosperma, and thiosinamin. Besides these there have been a number of minor interpolations scattered throughout the work.

Dr. Wood does not feel that he should surrender his judgment as to the importance of various remedies to that of the Committee on Revision, he does believe that official substances should always be favored by the physician when not to the detriment of the patient. Moreover, for obvious reasons, it is important that a text-book for students should recognize the legal authority of the country on the subject of drugs. Therefore, while it has been deemed advisable to consider a numbr of unofficial drugs, because of this practical importance, it has also been necessary to include some substances of little remedial value because of their recognition by the Pharmacopoeia.

I very emphatically recommend the book. It is the best of its kind up to the present day. It contains 455 pages and a handsome volume printed on a magnificent high grade paper. The publishers have spared no expense to make the volume attractive and on material that will last as long as the lesson it conveys to the scientific world. The illustrations are not numerous, possibly not as much so as would be of value to the book in the way of illustrations.

International Clinics, a Quarterly of Illustrated CClinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to Students and Practitioners. By leading members of the Medical Profession, throughout the world. Edited by H. R. M. Landis, M. D., Philadelphia, U. S. A., with the collaboration of Charles H. Mayo, M. D., Rochester. Sir Wm. Osler, Bart., M. D., F. R. S., Oxford; Rupert Blue, M. D., D. P. H., Washington, D. C.; Frank Billings, M. D., Chicago; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; A. McPhe-

dran, M. D., Toronto; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Richard Kretz, M. D., Vienna, with correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Geneva. Volume III., Twenty-sixth Series, 1916. Philadelphia and London. J. B. Lippincott Company.

This is unquestionably the best volume of International Clinics that has been issued in several years. It is possibly on account of its numerous and appropriate illustrations that I make this statement. The publication of this work deserves many thanks from the medical profession for publishing a series of books so valuable tothe medical profession. The volume is ful lof medical information discussed by the most eminent physicians in the world. The selections of their topics are timely—and the volume should be read by every physician in this country, and even if it is partially or superficially looked over, the buyer of the book would be well paid for his purchase. The volume contains 308 pages—and is bound in the uniform style. It is printed on the same kind of paper—in fact the architecture of the whole book corresponds in every way with the former volumes.

Miscellaneous.

The term aerial disinfection is employed to mean the use of the air as a vehicle for diffusing, to all exposed surfaces of the room and its contents, a gaseous germicide. The disinfection of the air itself, more or less loaded with germ laden dust particles as it usually is, may be regarded as incidental, just as would be the case with water used in making a disinfectant solution. Air and water are the natural agencies for cleansing an infected apartment. Why should we not render the former germicidal as well as the latter? Some of the most prominent opponents of fumigation advocate a renovation of infected apartments so thorough as to include repapering, repainting, etc. They would subject the scrub woman, paperhanger and painter to the danger they thus clearly recognize, without the protection which a prior and efficient fumigation would afford.

An eminent scientist has placed before a symposium of health officers seven questions hereinbelow mentioned:

1. After what diseases do you think it desirable to fumigate?

2. Do you regard formaldehyde as the most satisfactory aerial disinfectant? If not, what in your opinion is better?

3. Do you think the conclusions reached by Mr. Adams justified?

Reads as follows:

"I am assuming in what follows, only two points: That you are an adult, and a non-consumptive at present. On the hypothesis:

1. You have had tuberculosis.

2. You have cured yourself of it.

3. In the process of curing yourself you have so fortified your body against it that you are safe against "catching" the disease from any other person.

4. If you now become a consumptive it will be through a relapse and by your own fault.

4. Even if this new theory of tuberculosis were generally accepted, would it not point to the necessity of fumigation after pulmonary phthisis to protect children?

5. Have you, in your experience, thoroughly satisfied yourself as to whether or not communicable diseases are commonly conveyed by objects handled by the patient? In other words, what role do fomites play in carrying infection?

6. How is it that some sanitarians who advise burning books handled by a person having a contagious disease, regard the fomite theory, as applied to things generally, so lightly that they do not fumigate the room and its contents?

7. Is not the viability of pathogenic bacteria so influenced by deficiency of light and fresh air, and so affected by atmospheric conditions in general, as to make it unwise to rely upon disease germs shortly succumbing to conditions practically unattainable without fumigation?

A careful study of the foregoing questionaire will doubtless present many phases of the varied theories based on the experiences of our leading sanitarians, and, as good citizens, the laity itself should appreciate the difficulties encountered in arriving at a majority vote. Yet a large majority (about 95 per cent.) of the state health officers, joining in the symposium, favor a continuance of formaldehyde gas disinfection on the practical basis that one cause of spreading communicable diseases (room infection) should not be neglected because another has been found (carriers), whatever the relative importance of the two agencies may be. Destroy bacteria by volatilizing formaldehyde, without ignition, in warm moist air.

The Efficient Spinal Supporter.

It is the opinion of a large majority of the medical profession that in cases of

spinal curvature, no matter how caused or of what nature, a spinal supporter or brace is indicated.

The efficient spinal suporter should be so constructed as to elongate the spine, for all admit that the only way to straighten a crooked spine is to extend it, to separate the individual vertebras and allow as little pressure as possible on the intervertebral cartilages and the roots of the spinal nerves. It should exert a gentle but constant life between the hips, the torso and the axillary folds, thus removing the weight of the upper portion of the body from the spine, transferring it to the hips.

The efficient supporter should be light in weight and comfortable to wear, so that the patient's general health will not be affected by weight or undue pressure anywhere. It should be adjustable that advantage may be taken of improvement in the patient's condition and easily removable to permit of examination and to facilitate bathing, massage and medication.

While giving proper longitudinal support, the efficient supporter should be flexible to allow of movement and exercise sufficient to prevent wasting or atrophy of the muscles.

Plaster of paris casts, sole-leather jackets and steel braces will, in many cases, bring about satisfactory results, but the shortcomings of this rigid form of support are apparent to the modern practitioner. A heavy and rigid aparatus, through the discomfort it brings the patient, meets with opposition from all parties concerned and is often discarded before being worn a sufficient length of time to demonstrate whatever merit it may possess.

Many cases of spinal irritation and general neuresthenia, without actual spinal curve, need a spinal supporter. Most of these patients will welcome a light and comfortable apparatus but find great difficulty in wearing the cast, jacket or brace frequently ordered by Orthopaedists.

In cases of anterior polio-myelitis, a muscle grafting is or is not done, support of the spine is indicated and should be advised at a very early period.

In cases of spinal tuberculosis, it is especially necessary to remove the weight of the upper portion of the body from the vertebras, and a comfortable, efficient appliance is indicated.

On another page in this issue appears the advertisement of the Sheldon Appliance, which we believe is the most practical and efficient spinal supporter on the market. This Appliance is made by the Philo Burt Manufacturing Company at Jamestown, N. Y.

"Paraldehyd" possesses many of the Used in Insomnia resulting from various good without the evil qualities of chloral. causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see page XIV this issue) which is an elegant preparation.

Concerning Cathartics.

To the layman, a cathartic is simply a cathartic, and nothing more. One thing is as good as another, as long as it "moves the bowels." To the physicians there is a vast difference between "moving the bowels," and inducing normal bowel action.

For years Strychnine was the stock ingredient of cathartics, for the purpose of stimulating the muscle to peristalsis. But nowadays we realize that Strychnine more often inhibits peristalsis by overstimulation, and that the best stimulant of intestinal muscles is the intestinal secretions.

Pil. Cascara Comp. Robins contains no Strychnine to force the musculature, nor Belladonna to inhibit the secretions. On the contrary it stimulates the flow of secretions and normalizes peristalsis. It is, in fact, a normal Cathartic.

The Bowels Are Secretory Organs.

It is the failure of the secretory function of the bowel, together with a poor bile secretion, which, in nine cases out of ten, is responsible for constipation.

Most carthartics altogether overlook this factor and address themselves solely to a stimulation of the musculature. Some even inhibit intestinal secretion. The result is a rapid, unsatisfactory bowel movement, followed by paralytic reaction.

Pil. Cascara Comp. Robins is a rational therapeutic formula, which promotes a natural flow of secretions, which is, in turn, the physiologic stimulant of peristalsis. Thus a normal evacuation is produced, without subsequent inhibition.

Formula of Pil. Cascara Comp. Robins-Mild.

Cascara	1-2 gr.
Podophyllin	1-16 gr.
Colocynth	1-4 gr.
Hyoscyamus	1-12 gr.

Dose 1 to 3.

Pil. Cascara Comp. Robins-Strong is 4 times strength of the Mild.

ad-12-16

Campetrodin.

This preparation is an oleaginous solution of Iodine in Camphor. Soothing, penetrating, powerful antiseptic, local analgesic, alterative, ideal surgical dress-

ing.

The great therapeutic value of Campetrodin is attributed to the fortunate properties of its vehicle, which permits the remedy to enter the tissues and blood stream as it were, by osmosis, bringing about results immediate and satisfactory. Wherever the therapeutic properties of Iodine are indicated, Campetrodin can be relied upon, minus the disadvantage of crude Iodine. It relieves local pain promptly without local iritation; on the contrary, it can be applied to denuded or burned surfaces as an anodyne.

As an antiseptic dressing it is equal to any, and without the dangers of most of them. In all cases where prompt absorption or lymphatic stimulation is desired, it penetrates the tissues almost as soon as it is applied to the skin.

Campetrodin (Double Strength) is especially valuable in reducing swollen glands, and relieving obstinate, deep-seated rheumatic and neuralgic pains.

Both strengths supplied on prescription in one, three, and eight ounce bottles.

On request, the manufacturers, A. H. Robins Company, Richmond, Va. will be glad to send samples for clinical test.

ad-4-17

A Medicinal Trochar, for the treatment of dropsical effusions, is as important an innovation of modern medical science as the therapeutic lancet for the relief of vascular congestion. The latter office has for several years been performed by aconite. The former function is fulfilled by Anedemin. This excellent preparation is a scientifically balanced and skilfully compounded mixture of Apocynum Cannabium, Urgenea Scilla, Strophanthus Hispidus, and Sambucus Canadensis. It is well enough, in a general way, to call it a Medicinal Trochar, but, as a matter of fact, of course, its action is much more fundamental and thorough than that of a trochar. It strikes at the root of the trouble, and removes the cause of the Aanasarca, rather than its results. It restores the balance between the arterial and venous systems, at the same time improving cardiac tone, and this prevents the accumulation of fluids in the tissue. The Anedemin Chemical Company, Chattanooga, Tenn., will be pleased to furnish physicians wth a liberal working sample of Anedemin Tablets for a thorough try-out. Anedemin is a remedy dependable always, can be pushed and administered with safety wherever indicated. Has no cumulative action. ad-6-16

Double Pulley Extension.

It is a tube that will telescope to fit any bed. Curves out 5 inches from the foot of bed. The vertical piece that supports the pullies slides up or down or any place along the bar. The pullies are six inches apart, and by a thumb screw can be tilted either way. The adhesive going direct to pulley from either side of the foot without the block of wood, holds the foot at any angle. A loose pulley hanging to the rope to which a single weight is attached gives even traction on both sides. Can be adjusted to any bed in three minutes. Can be clamped onto any bed in three minutes. You will say, as all doctors do Why did we ever ise the single pulley?.

A SUPPORT, that will hold the limb in any position and maintain it that way, and at the same time enable you to see and know that the fracture is in position. It is the only ideal way of treating a fracture of the leg or thigh, and is equally helpful in sciatica, hip-joint disease, spinal injuries, or any trouble requiring traction.

For leg or thigh, adhesive strips are placed on either side of the leg, and each strip left to extend eight inches below the foot. The ends are then folded and fastened through rings with a safety-pin. In some cases it may be advisable to use a long posterior splint, in which case pad lightly with gauze and use a two-inch adhesive around both splint and leg. By adjustment made on pulleys by a thumb screw, the foot can be held at any angle or elevation. The direct, even traction on either side of the leg holds the foot without lateral support. You don't have to use a block of wood to hold the adhesive away from the malleolus. You will find you can get all the traction necessary with much less weight than by any other method, as the pull is constant, direct, and without friction. Your patients will appreciate this method of treating fractures. It gives them far more freedom of movement, and the bed pan can be used with very little inconvenience.

You have no uncertainty as to what you are going to do when called to treat a fracture. You don't require the assistance of bystanders in getting boards, nails, hammer, and brace and bit. You are master of the situation—a professional man, not a carpenter.

DOUBLE PULLEY EXTENSION CO.,
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ad-9-16

Sluggish, Overloaded Bowels.

When the bowels are sluggish and overloaded, the whole system is usually depressed and deranged b ythe retention of toxic waste material. Without delay it becomes necessary to increase the activity of the bowels and promote regular evacuation of their contents. For these purposes there is no remedy that will give more prompt and satisfactory results—with such freedom from griping or after-effects as Prunoids. One to three at bedtime will afford prompt relief—without the usual cathartic discomfort—and rapidly restore functional regularity of the bowels. As one prominent physician has said "Is use Prunoids because it **regulates** as well as **evacuates** the bowels." Samples will be sent on request to the Sultan Drug Co., St. Louis, Mo.

It is probable that there is not five per cent. of practising physicians who have not had their attention called to the use of mineral oil as an intestinal lubricant and therefore know nothing about it. Unfortunately, however, assuming that ninety-five per cent. of the medical profession are practically or theoretically acquainted with such therapeutic use of mineral oil, it is a fact which could not in all probability be denied, that the great majority of these physicians have formed a more or less erroneous idea as to the modus opperandi of the agent.

Many there are who express an opinion that the efficiency of mineral oil depends upon the high specific gravity. That this is a fallacy will be appreciated, if it will be remembered that the therapeutic object to be attained is not to get oil to pass through the intestinal canal in the shortest possible time. The heavier the oil, naturally the quicker it would tend to make its way to the anal outlet. Mineral oil does not possess physiological action to any degree. The restoration of loss of function to a bowel exhausted by useless attempts at peristalsis and impotent in the presence of masses of hard, unyielding and dry feces, is not brought about by "greasing it with oil." For protection of the intestinal mucous membrane, a thin coating of oil serves an excellent purpose, and the property which is responsible for the spreading of such an oil over the surface is not specific gravity, but what is popularly known as "Spread."

The recovery of normal peristalsis in cases of constipation or obstipation, is brought about by a softening of the fecal content of the bowel, so that it can be easily moulded and can adapt itself to changes in calibre or direction of the gut or make its way past obstructions, however produced. Consequently the properties of "Penetration" and of "Mix" are those which are most important in considering the action of mineral oil.

Many physicians have an idea that high viscosity is essential, forgetting that high viscosity does not mean good mixing or penetrating properties. Hence the physician who has used mineral oil haphazardly or with an idea that the higher its specific gravity and the greater its viscosity, the greater the results to be expected, has naturally scored probably as many failures—if not more—as he has successes.

SPREAD, MIX and PENETRATION are, therefore, the three most essential and important properties to be considered in making a selection from the many kinds of oil exploited to the medical profession—and to the public. Fifteen years experience in the refining and adapting of Russian mineral oil for use as an intestinal lubricant, has enabled its makers, McKESSON & ROBBINS, to develop Spread, Mix and Penetrating properties to the highest degree, so that in LIQUID ALBOLENE the physician may rest assured that it is a form of mineral oil which will practically guarantee him successful results, provided he uses it in the proper cases and ACCORDING TO CORRECT METHODS OF ADMINISTRATION.

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With the onset of Winter with its changeable weather, the old folks of reduced vitality and resistance, begin to suffer from bronchial inflammations. Prevention in these conditions is better than cure, and prevention lies in the employment of those agents that will add to the patient's bodily strength and more narrowly the resistance of bronchial tissue to atmospheric disturbances with a consequent germ invasion. For this purpose Cord. Ext. 01. Morrhuae Comp. (Hagee) has been found of the utmost value not alone for its therapeutic influence but also by reason of the fact that it does not upset the stomach. Give it to your patients who suffer annually from bronchial attacks.

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This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

About Soporifics.

The measure of a soporific's usefulness is found not in any single quality but in its adaptability to the various nervous and mental conditions encountered in daily practice. Potency, although it is the first essential cannot be taken as a standard by which to judge a remedy of this class. Danger either of immediate evil effect or habit-forming too often accompanies this quality. The sphere of usefulness of such remedies is limited to cases which are under the constant supervision of the physician or trained attendant. It is essential to have a safe sedative-hypnotic for the vast majority of cases. Such a remedy must be free from habit-forming drugs and dangerous heart depressants. On the other hand it must possess sufficient potency to relieve all nervous manifestations and highly excited mental states not absolutely requiring the administration of an opiate. It must be a remedy in which dependence can be placed not only as to positive therapeutic effect, but also as to freedom from deleterious results.

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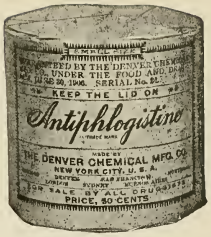

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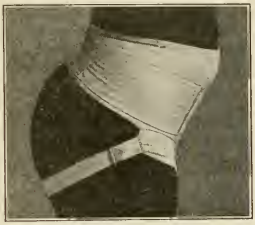

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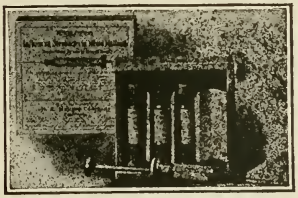

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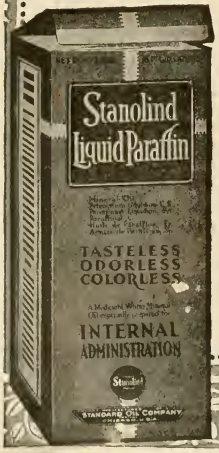

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Robert Lee Payne M. D., F. A. C. S.

The Charlotte Medical Journal

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ROBERT LEE PAYNE M.D., F.A.C.S.,

Edited by Drs. D. W. and Ernest S. Bulluck, Wilmington, N. C.

Robert Lee Payne was born in Lexington N. C. on March 28, 1857. He was the son of Dr. Robert Lee Payne and Winfred T. Payne. His grandfather being the distinguished Dr. C. L. Payne.

This physician's early life was spent in Lexington, N. C., where he attended grammar school and carried on the other duties and pleasures that go to make up the life of the typical American boy. He later entered the Finley High School at Lenoir N. C., (1874-5) from there he went to the University of North Carolina, where he soon became one of the leading figures in the University life. At his graduation (1876) he was Marshall, Representative of the Di Society, and won the medal for achievement in Chemistry.

Dr. Payne then began the study of medicine at "Jefferson" in Philadelphia, finishing in 1881, and passing the North Carolina Board the same year.

He started his professional work in the town of his birth and fifteen years of this devoted service was a privilege for which this community still holds his name and memory dear. A unique distinction was his by reason of the training of his progenitors, for he occupied the office which had served a Dr. Payne continuously for more than a hundred years. Dr. Payne was for twelve years physician to the County Home in Lexington. While in Lexington he married Miss Mary Emma Hankins, a lady of gentle dignity, whose sympathy and encouragement have contributed to his happiness and success.

Spurred on by present successes and ambitions for the future Dr. Payne decided to move to Norfolk Va., a larger city which offered better opportunities for the development of his talent. There he continues the work for which he seems so admirably fitted.

He has worked in the Protestant and St. Vincent's Hospitals (1896-1916). At St. Vincents he served first as Gynecologist and later as Surgeon. Upon his resignation he was made Consultant in these two branches of surgery and President of the staff. Beginning as a general practitioner, Dr. Payne has graduated from a school of practical medicine into a finished and skilled surgeon, and as such he is recognized in his own and neighboring states. He is daring in action, conservative in mind, discriminating in judgment with the abundance of strength and enthusiasm that are so necessary in the practice of surgery.

Dr. Payne has given much of his time and effort for the success of the medical societies with which he has been affiliated. He joined the North Carolina Medical Society in Asheville (1881) and was elected its treasurer in Raleigh (1885) and its Orator in 1889; and its vice-president in 1890. He then served for two years on the Board of Medical Examiners. In 1896 he was elected President of this society. After this time he moved from the state to his present home, but continued his attendance at the meetings of the society that had conferred upon him all of the honors it had to give, and in 1905 he was elected an honorary member of the body. He is a member of The American Medical Association and the Virginia Medical Society, and a member and ex-president of the Norfolk County Medical Society. He is a member and has served as president in the Seaboard Medical Society and he is also a Fellow of the American College of Surgeons.

Dr. Payne is Chief Surgeon of the Norfolk and Southern Railroad, Local Surgeon of the Southern Railroad, Chespeake S. S. Co., The Clyde Line S. S. Co. and Chief Surgeon to the John L. Roper Lumber Co. At the Jamestown Exposition he was its Medical Director. (1906-7). He is Director of the Norfolk Bank of Savings and Trust and ex-president of the North Carolina Society in Norfolk.

Amid his numerous duties Dr. Payne has found time to devote to the constructive study of medicine and the publication of his studies have contributed their quota to our understanding and practice of it. Along the lines of research, which have attracted most attention are, his contributions to the physiological and therapeutic action of mistletoe, and of Virburnum Prunifolium, both of the studies receiving English and French publication and some of the leading American teachers still show the influence of his investigation. He has published innumerable papers on medical and gynecological subjects, including "Obstructions to the Function of Micturition

and Results," being the essay for prize offered by Dr. Hunter McGuire in competition to members of North Carolina, Virginia, and West Virginia Medical Societies, awarded to Dr. Payne by committee of the Medical Society of Virginia. (1893), also "The Sacroiliac Joint and its Injuries: Some Recent teachings Contravened." "A plea for Early Operation in Fractures and Dislocations of the Verterbrae," "Tubercular Kidney," "What Shall Be Done In Non Penetrating Wounds of the Abdomen with probable Viseceral Lesions," and "Some Phases of Modern Medicine," This was the annual oration before the Virginia Medical Society 1902.

He started attending post graduate schools early in his career and has frequently visited the prominent medical clinics of our country.

Dr. Payne is at present fifty-nine years old, he is vigorous and healthy and in the prime of his medical career. His married life has been made brighter and happier by four children to all whom he had given exceptional educational advantages. Among these are Dr. R. L. Payne Jr., who has been associated with his father for the past ten years, and whose brilliant achievements and masterly interpretation of the medicine of our day have won him, despite his few years, the distinction of being one of the most skilled surgeons in this section of our country. A noble son whose brilliant future should and does bring a warmth of comfort to a devoted father another son L. B. Payne has just completed his third year at Jefferson Medical College, and two daughters, Miss Bessie Payne, and Mrs. M. N. King whose husband is a physician.

Dr. Payne is a staunch Presbyterian serving first as Decon and for the past twenty-five years as Ruling Elder of his church; and what is of great importance in these turbulent times he is a loyal Democrat.

Dr. Payne has, by reason of his labors and achievements, won a place of distinction in his profession—a just reward fr work well done.

ON THE GROWTH OF MEDICAL KNOWLEDGE CONCERNING THE MALADY KNOWN AS INFANTILE PARALYSIS, ACUTE ANTERIOR POLIOMYELITIS, OR THE HEINEMEDIN DISEASE.*

By Lewellys F. Barker, M. D., LL. D., Professor of Clinical Medicine in the Johns Hopkins University, Baltimore, Md.

The subject is timely since aside from the fact that this dreadful disease has been raging in epidemic form in New York City and its environs this summer, affecting fully 8,000 persons and causing the death of approximately 2,000, the malady is one that illustrates unusually well the progress that is being made through medical research in the study of a certain class of communicable disease that are due to forms of infectious agents that are smaller than any known bacteria —that is, to so-called "filtrable" or "ultramicroscopic" viruses.

Heines Early Description of the Disease.

Though the disease to be considered has doubtless existed for a long time among human beings, it was not until 1840, when J Heine of Cannstadt published his careful descriptions of patients suffering from it, that it became sufficiently well-known to be generally recognized by medical practitioners. Heine studied especially the form of the disease in which the lower extremities of children are paralyzed. He believed that the disease was due to an affection of the spinal cord, and gave to it the name **Spinale Kinderlahmung**, which translated into English is Infantile Spinal Paralysis. The children sickened suddenly, often with signs of a sore throat, or of a digestive disturbance. They had fever, rapid pulse, and sometimes vomiting or diarrhoea. Within a few days of onset, it was noticed that one leg or both, and sometimes one or both arms, could not be moved at all by the child; and when lifted from the bed by the physician and again released, the affected extremities fell "limp and lifeless," being completely paralyzed, wholly beyond the voluntary control of the patient. Many of the little patients died; more of them, however, recovered, some of them, fortunately, regaining completely the use of their limbs, though a large proportion remained permanently more or less paralyzed in one or more extremities, the child growing up with a small, shortened

*An Address delivered before the Canadian Club, Hamilton, September 8th, 1916.

leg, or, in less severe cases, with a limp, or a club-foot, as signs of residual paralysis.

Charcot's Studies of the Spinal Cord in the Disease.

The distinguished French neurologist Charcot, in 1870, studied the spinal cords of patients that had died subsequent to an attack of the disease, and found that the large nerve-cells in the anterior horns of the gray matter of the spinal cord had been killed in the course of the disease, and had disappeared. Since **myelitis** means inflammation of the spinal cord, and **polio** refers to the horn of gray matter, this acute disease in children came to be known as Acute Anterior Poliomyelitis, a good name for it if we consider only the progress that had up to then been made in the study of the disease, but, as we shall see, a name that is in reality suitable now for only one of many types of disease that we have since the time of Heine and of Charcot learned to be due to one and the same infectious agent.

Recognition of Different Types of the Disease.

Thus strumpell early suggested that certain acute palsies due to a disease of the brain occurring in children might be the result of a different localization of the same virus as that concerned in infantile spinal paralysis.

In 1890, a Swedish physician, O. Medin, made a careful study of an epidemic of the disease, and demonstrated conclusively that, though paralysis due to injury to the spinal cord predominated, there occurred, along with these spinal cases, instances in which other parts of the nervous system were attacked, especially the cerebrum, the medulla oblongata, and the peripheral nerves. This observer subdivided the cases into spinal, cerebral, bulbar, poly-neuritic, and ataxic, forms of one and the same disease.

About fifteen years subsequent to Medin's studies, another Swedish physician, J Wickmann, studied a large epidemic, and not only confirmed Medin's discoveries but extended them in several important directions. To the types that had already been described he added (1) a meningitic form in which the symptoms are very similar to those met with in epidemic cerebro-spinal meningitis, and (2) a form in which an acute ascending paralysis occurs, beginning in the legs, extending quickly to the trunk and the arms, and as a rule terminating fatally soon afterwards, thus following a course identical with that of a disease that had formerly been known as acute ascending spinal paralysis or Landry's paralysis.

Abortive Forms of the Disease.

Of still greater significance was the discovery by Wickmann that **abortive forms** of this disease occur in large numbers during an epidemic; many children sicken only slightly, often without suffering any paralysis whatever, recover completely, and thereafter, like those that have had severe attacks, remain permanently insusceptible to, that is immune from, subsequent infection with the virus that causes the disease. Formerly these abortive forms were entirely overlooked, and even now that we know about them there can be but little doubt that a great many such cases occur in every epidemic and remain entirely undiscovered. Since these patients, though scarcely ill themselves, harbor and give off the virus, it is believed that they may be even more responsible for the spread of the disease than patients that are outspokenly and recognizably ill. Indeed this discovery of the existence of abortive forms has brought great credit to Wickmann, to whom we now accord the honor of laying a foundation for the doctrine of the mode of spread of the disease during epidemics, or what physicians call the **epidemiology** of the disease. To this matter of the mode of transmission of the disease, so important for solving the problem of prevention, I shall refer again later on.

The Wide-Spread Changes in the Body in the Disease.

It will be noticed that these observations of Medin, and of Wickmann, greatly enlarged the conception of medical men as to the nature and seat of the disease in the human body, for they proved by their studies at the bedside that not only can the spinal cord be affected, but also that the most diverse parts of the central nervous system and the membranes covering it (the meninges), as well as the nerves connecting the central nervous system with all parts of the body, may be involved. These conclusions drawn by clinical workers have since received abundant support from the studies of pathological anatomists, that is by laboratory workers who have made examinations of human bodies after death from the disease and have studied the changes in the different organs visible to the naked eye and under the microscope. Among the most careful studies of this sort may be mentioned those of the American workers, S. Flexner, P. F. Clark, H. L. Amoss, F. W. Peabody, G. Draper, H. E. Robertson, and A. J.

Chesley. Briefly summarized, these studies have demonstrated that the virus, whatever it is, that causes the disease, causes changes chiefly around the blood-vessels and the lymph-vessels all over the body, not only in the nervous system, but in the other internal organs, for example in the intestines and in the lymph glands of the mesentery. Widespread changes of the same sort occur in the central and peripheral nervous system, in some instances causing death of the nerve-cells in the anterior horns of the gray matter of the spinal cord (spinal form), in others attacking especially the upper portions of the brain (cerebral form), the coverings of the brain and cord (meningitic form), the peripheral nerves (neuritic form), or still other parts (bulbar form; ataxic form). Indeed, it is surprising on studying the widespread changes that occur in the body in the disease that the symptoms presented by the patients are not more pronounced and varied than they are found to be. The insufficiency of names like "Infantile Spinal Paralysis" and "Acute Anterior Poliomyelitis" for a disease in which the injuries to the tissues of the body are so generally disseminated throughout it has become obvious, and a more comprehensive name for the infection as a whole is desirable. Many writers, therefore, pending the introduction of a still more satisfactory non-restrictive term, now refer to the malady as the Heine-Medin disease, naming it after the two clinicians whose early and important studies I have referred to.

Studies of the Heine-Medin Disease as Experimentally Produced in Animals.

It was formerly believed that the disease can attack human beings only, but in 1908 K. Landsteiner and E. Popper successfully infected monkeys by injecting material containing the virus into the peritoneal cavity of these animals. In the following year, S. Flexner and P. A. Lewis, at the Rockefeller Institute for Medical research in New York, demonstrated that the disease could be kept going in a series of monkeys by passing it from monkey to monkey, a fact soon confirmed by the reports of experiments made in European laboratories (Romer; Landsteiner and Levaditi). Attempts to produce the disease experimentally in animals other than monkeys proved unsuccessful.

As in many other infectious diseases, the approach from the experimental side to the solution of some of the problems set by the Heine-Medin disease marked the beginning of a series of important discoveries. For once a disease can be kept going in animals, the opportunities for original researches on that disease become enormously increased, since laboratory-workers can, in the first place, have the materials of their work always at hand, and, in the second place, more important still, they can subject their observations to rigidly controlled conditions that they can, from time to time, alter at will. One has only to recall the brilliant illumination of what had before been obscure regarding tuberculosis and syphilis through the study of these terrible diseases as experimentally produced in animals to realize with what hopeful expectancy medical scientists heard the news that the Heine-Medin disease could be experimentally kept alive and studied in monkeys. For notwithstanding the virulent opposition of sentimentalists, people who are influenced by reason as well as by feeling now generally recognize that the sacrifice of a certain number of animals in scientificically conducted experimental work is fully justified when that sacrifice gives promise that it may lead subsequently to the saving of large numbers of lives, or to the mitigation of untold human or animal suffering. As we shall see, the experimental production of the Heine-Medin disease in monkeys has given a sharp spur to the study of the cause of this much-dreaded malady, which, even when it is not mortal, often permanently maims.

The Virus that Causes the Disease.

The Heine-Medin disease tends to affect large numbers of persons, especially children, in a community at certain special times—in other words, it is prone to occur as an **epidemic** disease. Medical experience has shown that epidemic diseases that are accompanied by fever, and that run a more or less definite course, are due to the entrance into the body of some taint, poison, or virus from without, that is to say, they are **infectious** diseases. Moreover, the virus in infectious diseases is communicated from one person to another, either directly from body to body (**contagion**), or indirectly through some medium of the environment (air, water, food, insects, etc). The studies of the past thirty-five years have conclusively demonstrated for a large number of infectious diseases that the virus or infectious agent is a living microorganism (**germ** or **microbe**) that gains an entrance into the body and undergoes multiplication there, injuring the body by the production of specific

poisons and in other ways. The invading microbe possesses a whole series of mechanisms of aggression against the body involved, and at the same time the body invaded has a number of mechanisms of defense against the invading parasite. In the war that is waged, the body invaded may be wholly defeated and die; it may be quickly victorious and recover without residual injury, or it may conquer after a severe struggle in which such injuries are sustained as to leave it, in some respects, permanently impaired. What we call the symptoms and signs of an infectious disease are the phenomena of the struggle that physicians can recognize by the methods of observation that they have learned to employ, these methods in many instances involving an extensive knowledge and an elaborate training in technique.

The discovery of the germ that causes an infectious disease, and especially of the method of isolating it by cultivation on some artificial medium, has more than once proved to be a step that has given us greatly increased power over the disease concerned. Thus, the discovery and growth of the germ of anthrax by Koch, those of tuberculosis and of Asiatic cholera by Koch, that of diphtheria by Klebs and Loeffler, that of malaria by Laveran, and that of syphilis by Schaudinn, led very quickly to a complete reconstruction of our knowledge of these several diseases. The means of animal experimentation with these diseases were placed in our hands with practical results for diagnosis, prevention and cure that have excited the wonder, admiration and gratitude of the scientific medical world.

These studies of the **causation, or etiology**, of the infectious diseases showed that a large number of them are due to infection by microscopic vegetable germs (bacteria such as micrococci and bacilli, and other fungi), and many others to invasion by minute animal parasites (e. g., the **Plasmodium** of malaria, the **Trypanosoma** that causes sleeping-sickness, and the **Treponema** that causes syphilis). All these parasites (vegetable and animal), though exceedingly small, are still large enough to be easily seen, when stained by special methods, under high powers of the microscope. They can even be measured as to their length and breadth, and can be drawn or photographed. In many instances, their life history has been completely studied.

But not all infectious diseases are due to bacteria, or to animal parasites, such as I have just referred to. Both bacteria and ordinary animal micro-parasites can be separated from the fluids in which they are contained by means of special strainers or filters, the pores of which are so small and tortuous that the parasites are held back while the fluid passes through. Filters with pores of different sizes may be employed for the separation of smaller and larger particles. Thus the so-called Berkefeld filters, made of diatomaceous earth, have larger pores than the Pasteur-Chamberland filters, made of unglazed porcelain-clay. Recently, it has been proven beyond doubt that some of the most terrible diseases that afflict mankind (e. g., hydroprobia and yellow fever), as well as several minor ailments (e. g., dengue, and pappataci fever), are due to viruses that will pass through fine porcelain filters and are therefore smaller than the smallest bacteria known to us.

Now it has been shown by Flexner and Lewis in America, and by Landsteiner and Levaditi in Europe, that the virus of the Heine-Medin disease will pass through a fine porcelain filter and still be capable of infecting monkeys. The virus is not killed by drying, though it is quickly destroyed by sunlight. It is very resistant to solutions of glycerin and carbolic acid, chemicals that quickly destroy ordinary bacteria. The virus is resistant to cold for it withstands freezing temperatures for more than a week; it is, however, quickly destroyed by heat. In 1913, S. Flexner and H. Noguchi were able to grow this virus in pure culture on a special artificial medium, and in such cultures a form of the virus occurs that is visible under very high powers of the microscope as minute rounded-oval bodies with average diameter of 0.2 microns. These investigators were able to produce the disease in monkeys even when the virus used for inoculation had been grown for twenty generations on the artificial medium. On account of the great importance of this work, I have suggested that this **filtrable and cultivable** virus of the Heine-Medin disease be called **Flexneria noguchii.**

Through recent studies, based upon clinical observations and upon animal experimentation, it has been shown:

(1) That the virus of the Heine-Medin disease is always present in the nervous tissues and on the **mucous membrane of the nose, throat and intestines** of children infected with it, though it is rarely if ever present in their circulating blood.

(2) That this virus is sometimes present on the mucous membrane of the nose and throat of healthy persons who have been in close association with pa-

tients; though not ill themselves, these healthy virus-carriers may convey the infection to children with whom they come into near relation.

(3) That the virus is given off from patients and from healthy carriers chiefly by way of the ordinary secretions from the nose and throat and in the feces.

(4) That infection occurs by entrance of the virus by way of the mucous membrane of the nose and throat, the virus multiplying there, and then finding its way through the lymph-vessels from the upper part of the nose to the interior of the skull.

(5) That insects play no part in the transmission of the disease, except possibly occasionally by mechanical transfer of infected discharges to food or to persons.

(6) That animals other than monkeys are insusceptible to the disease, the paralytic diseases occurring spontaneously in dogs, cats, pigs and poultry being of an entirely different nature; and

(7) That the germs of the disease may, in rare instances, remain alive and virulent for as long as five or six months upon the mucous membrane of the nose (chronic virus carriers), though it seems probable that patients recovering from the disease do not harbor the virus, as a rule, longer than from four to six weeks after infection.

Immunity Against the Disease.

It has long been known that a single non-fatal attack affords security against a subsequent attack; this acquired Immunity lasts a long time, probably throughout the remainder of life, the insusceptibility to infection depending upon the manufacture, in some of the internal organs, of "immunity-substances" that go over into the blood and through it are distributed to all parts of the body. These immunity-substances have been demonstrated in the blood of persons that recovered from the disease as long as twenty years before the test was made. It has been shown, too, that persons who have had only a mild attack or an abortive form of the disease develop these immunity-substances and are protected from subsequent infection as well as those that suffer from severe attacks.

It is sometimes possible to render monkeys artificially immune by inoculating them with small doses of the virus, but no safe and constant procedure for this form of active immunization has yet been devised.

The injection of the blood-serum of immune monkeys into non-immune animals sometimes yields a temporary passive immunity against infection, but the results of experiments thus far made do not promise much for human protection in this way. This is a pity, for judging from the brilliant results obtained by protective passive immunization against diphtheria by injection of small doses of diphtheria antitoxin into susceptible children, there had been hope that during epidemics of the Heine-Medin disease temporary protection might be possible by means of such passive transfer of immunity-substances.

It is possible that some method of serovaccination may yet be worked out as an efficient means of producing artificial immunity. By this is meant inoculation of a small quantity of virus, perhaps attenuated, along with some serum containing the immunity substances.

Prevention of the Heine-Medin Disease.

If our present views are correct, the portal of entry of the virus into the human body is the mucous membrane of the nose and throat, and the principal source of the virus is from the discharges from the nose and throat of persons harboring the virus. Patients seriously ill of the disease are probably less often the direct communicators of the virus than (1) children who are infected but are not yet ill (incubation stage), (2) persons with abortive attacks, (3) convalescents for a month or six weeks after the attack and, occasionally, in the case of chronic carriers, for six months after, and (4) above all, those who have come into contact with patients, or convalescents, and who, not ill themselves, harbor the virus ("healthy carriers") and convey it to susceptible persons.

Our main efforts in an epidemic should be directed towards teaching people how to prevent the virus from these sources getting into the nose or mouth of susceptible persons, especially children. About 96 per cent. of those infected are under ten years of age, 90 per cent. under five years of age, and over 75 per cent. under three years of age. Children of the well-to-do seem to be just as susceptible as those of the poor, and race has no effect on disposition.

When an epidemic prevails, day schools and Sunday schools should be closed, and children should not aggregate at parties, picnics, playgrounds, churches, theatres, or funerals. Each child should have its own handkerchief and towel, and should never use those of another child, or of a parent. Kissing should, for the time, be prohibited. Towels, handkerchiefs and other linen used by patients should be thoroughly disinfected. The sputum and the feces of patients should be sterilized. Patients should be especi-

ally warned about expectoration, and should be told to cover the nose and mouth with a handkerchief when there is any inclination to cough or sneeze. The neighborhood of coughing or sneezing persons, ill or healthy, should, as far as possible, be avoided. Mothers, or nurses, who care for infants and very young children, wiping their nose, etc., may readily contaminate their fingers with the virus, and, unless they are scrupulously sanitary, may easily on attending other children or on preparing food convey the virus to susceptible persons.

The diagnosis of the disease when it exists should be made as early as possible so as to permit of immediate isolation and of proper sanitary precautions. Preferably, the patient should be removed to a hospital, unless effective measures can be instituted in the home. Patients should be kept in fly-free rooms, and the discharges from their noses and throats and their intestines, should never be left where flies or other insects can have access to them. And it is desirable, also, as a precautionary measure, that in times of epidemic, children should partake only of food that has run no risk of contamination by flies, insects, fingers, or dust, that could convey the virus. The sources of food, its preservation, its preparation for the table, and the serving of it, should be circumspectly controlled at all times.

Persons traveling from infected to non-infected areas should always be suspect; they may be virus-carriers. In times of epidemic, the Heine-Medin disease in extending through a district or country follows the ranks of ordinary travel. The evidence seems to me conclusive that the germs are distributed along these ranks by human carriers.

Treatment of the Heine-Medin Disease.

Drug treatment of the disease has thus far been of little, if of any, avail. Hexamethylenamin by mouth has been advocated, as has been injection of a solution of epinephrin into the sac that surrounds the spinal cord.

Netter, of Paris, has used intraspinous injections of serum obtained from patients who have recovered from the disease in order that the immunity-substances may act locally in full intensity. There is some evidence that this mode of treatment is beneficial and it is being as extensively tried as the scarcity of the serum will permit in the epidemic now raging in New York.

Close medical supervision, symptomatic treatment, and skillful nursing are important during the acute stage of the disease. The mortality varies from 5 to 25 per cent. in different epidemics. The majority of patients survive, and many of them have no paralysis whatever at any time. Of those that are paralyzed in the acute stage, many recover completely, and, in all cases, there is recovery of some of the paralyzed functions, improvement going on for at least one or two years after the attack. Protection of the diseased parts from over-exertion, judicious massage, and electrical treatments, favor this recovery; in the severe cases of crippling, orthopedic surgeons are often able to do much to restore function. In only relatively few instances are patients so crippled as to be helpless.

Importance of Medical Research.

The limits of this paper have permitted only a brief summary of the investigations of the Heine-Medin disease that have been made by medical men. But even such a concise statement will, I think, convince any thinking person that, though still leaving much to be desired, our knowledge of the malady is moving steadily forward and that our conceptions of it are undergoing important reconstruction due to clinical experience in the more recent outbreaks and to the carefully-conducted animal experimentation that is constantly going on in laboratories especially endowed and equipped for medical research. The public is becoming alive to the fact that discoveries of the causes of obscure diseases and of practical methods of preventing, and sometimes of curing them, can be bought with money. There are always men with good intellects who are interested in making discoveries in medical science but are prevented from devoting the consecutive time and energy necessary to the solution of the problems by lack of technical equipment, suitable materials for their work, or the requisite financial security. A rich man who desires to spend some of his money for the benefit of mankind would today find it difficult to make any better investment for the purpose than by establishing an endowment for medical research and placing the control of it in the hands of a group of scientists of known ability and integrity, or of the authorities of a modern hospital. I feel sure that Mr. John D. Rockefeller has never been more satisfied with any of his many undertakings than he is with the Institute of Medical Research that bears his name. There is but little danger that too much money will be devoted to medical research. For the problems to be solved are of the utmost importance for the welfare of the human race, and there is crying need that the

trained intellects that are familiar with the medical situation, that see the problems to be solved, and that believe they know how to solve them, should not lack the equipment and the means to submit their hypotheses to active experimental test.

AMEBIC CONJUNCTIVITIS.*

By James M. Parrott, M. D., F. A. C. S., Kinston, N. C.

Explanation—Just a word by way of explanation: I am about to apologize for publishing these manifestly crude and incomplete observations. The cases have been too few and the period of observation too short to be conclusive or authoritative. My excuse for "rushing into print" is a very sincere hope that in calling the attention of the profession to this disease or entity, may serve by provoking others to investigate and study this subject to the end that the truth may be ascertained and if the disease is found to exist a remedy may be discovered.

Another word, let it be understood that I do not claim to have discovered a new disease (such may or may not be the case) or new symptoms complex. I admit that the symptoms described may be exaggerated exacerbations of an old disease and bacteriological findings may be a mere coincidence. I record the symptoms as I have noted them and for convenience have grouped them according to the text-book method. We have found in the conjunctival discharge in certain cases of chronic conjunctivitis presenting certain unusual symptoms, endamebae resembling closely the endamebae described and studied by Smith and Barrett. While I have been unable to find reports of recorded observations similar to mine it may be that such have been made and published. So far as I am concerned this work is original.

About eighteen months ago my attention was fixed on the fact that for some time I had noticed certain subjective and objective symptoms appearing at intervals in cases of so called chronic conjunctivitis.

Etiology: The name chosen for this disease if such it be, or these symptoms complex, expresses what seems to me to be its etiology. In each case studied, endamebae similar to those found in the mouth have been discovered in the conjunctiva. Each of the cases accompanied pyorrhea alveolaris and in two or three instances endamebae were found in the tonsils. We believe the amebae we have found in the conjunctiva in these cases are the cause of the original conjunctivitis or the symptoms which I describe.

Symptoms: The usual symptoms of chronic conjunctivitis are present and in addition there are attacks of severe itching and frequently the lids are more or less excoriated. Patients often come complaining only of severe itching which lasts for several hours at a time over a period of two or three days with several days or weeks intermission. The lids "scald easily," as the patients express it, during one of these attacks and I feel sure that the thin discharge has as much to do with it as does the rubbing.

The sclera is "steamy" in appearance and is not much conjested. On extreme retraction of the lower lid with the eyeball rolled upward a "milky like" injected fold is detected at the scleral attachment of the conjunctiva. I have noted this in one or two cases in which the amebae could not be found, but the "roll" was very short. I have never seen it extending as much as half across from the inner to the outer canthus except one case in which there was no evidence of pyorrhea past or present. This fold is slightly rounded and elevated and is very pale, almost white.

Diagnosis: The diagnosis is made by detecting the endamebae in the conjunctival discharge, the history of pyorrhea alveolaris, attacks of severe itching, easy though slight excoriation of the lids generally though not always present), apparently slight conjunctival infection a scompared to severity of the symptoms complained of by the patient and the "milky like" conjunctival ridge as before described, lying in the culdesac.

Prognosis and Treatment: Sulphate of zinc solution instillation with emetin (alcresta ipecac tablets are only partially satisfactory as a substitute for emetin) careful treatment of the gums and the use of ipecac solution in the mouth has given me the most satisfactory results. I have seen no cures, even though in one case all the remaining teeth were pulled and the gums healed completely. The endamebae will disappear from the conjunctival sac, the disease ameliorate, the characteristic symptoms be relieved, but the conjunctivitis has continued in every case I have treated. This fact then raises several questions. Is not the amebic infection always grafted on a previously existed chronic conjunctivitis? Is the presence of the amebae merely a coincidence and with no pathogenicity? It would doubtless be interesting and very profitable to discuss these questions but

*Read by invitation before the Sampson County Medical Society, July meeting.

just now I must forego the pleasure.

As a further elucidation of the text I present a hurried discussion of the following cases.

Case 1.—Miss A., age sixty-two, housekeeper. First seen June 24th, 1915. General health good.

Eyes: Troubled for twenty-five years with slight suppuration, burning, at times rather painful. Has attacks of severe itching and lids excoriate easily. Is decidedely hyperofic, each eye requiring plus 3.00 for distant vision.

Mouth: Has been troubled with bad teeth for years, does not remember whether eyes or teeth began to be diseased with pyorrhea alveolaris, so much so the dentist had to remove all teeth. Was given emetin treatment and ipecac mouth wash. (If ipecac is used at all in the mouth it must be very much diluted, otherwise as it did in this case it will prove very irritating).

The slight "milky" roll in the retrotarsal fold was seen very easily—in fact this was the first case in which I noted it.

This case has been under my care over a year and while the itching and lid excoriation have disappeared but little improvement is noted otherwise in the eyes. I have used many remedies in her eyes and even very, very weak solution of ipecac. Just here let me warn against even a very weak solution of ipecac in the eyes. The reaction is very painful.

Bacteriological Report: No microscopical examination before the administration of emetin. Examination made after six doses of emetin. No Amebae found. Smear from eyes contained diplococci and streptococci. Smear gums contained diplococci and streptococci.

Case 2.—Mr. B., age thirty-four. First seen July, 1915. General health not good, many symptoms of indigestion, nervous and while not emaciated is spare built. Has rather frequent attacks of sick headache and is not constipated.

Eyes: Hurt especially in the sunlight, has some glimmering, sight seems "smoky," itch a good deal at times and lids feel rough. "Milky" roll in the conjunctival culdesac. No error of refraction.

Mouth: Has pyorrhea alveolaris.

Microscopical Examination: Endemebae present in the discharge from both eyes and gums. Stained smears from eyes and gums show diplococci.

Treatment: Emetin six daily doses hypodermically an dreferred to a dentist. As in case 1, while this man's eyes have improved they are not well and this after over thirteen months' treatment.

Case 3.—Mrs. P., age forty-six. General health fairly good. Complains of muscular soreness and rheumatism. Sight glimmers and seems "smoky." Lids itch badly at times and burn and scald easily and frequently feel swollen. Eyes are sensitive to light. "Milky" roll observed in the retrotarsal fold. No error of refraction other than presbyopia.

Mouth: Has slight pyorrhea alveolaris affecting only two or three lower teeth.

Microscopical Report: Endamebae present in eye discharge but none present in discharge from gums. Smears from mouth showed diplococci and staphylococci. Miss Blount, the microscopist, makes this observation in her report (in speaking of the dischcarge from the gums) "also motile bacilli (unknown) long slender rods and very motile, resembling typhoid bacilli." This woman was given emetin hypodermically daily for six days and referred to a dentist. Her eyes were treated with several drugs and though they are much improved they are not well.

Case 4.—Mrs. R., age forty-seven, consulted me January 27, 1916. Complained of imperfect vision, headaches, eyes burning and aching and serere itching at times.

Microscopical Report: Eye discharge thin, sero-purulent ,endomeba present in large numbers. Specimen from gums showed a few small endamebae, bacilli (very motile), diplococci and staphylococci. Examination of mouth showed marked pyorhea alveolaris. Referred to a dentist for treatment of gums and given emetin daily for six days. Eyes treated with a solution of boric acid and camphor in water. Very marked improvement noted in this case.

Case 5.—Mrs. G., age fifty-three, consulted me April 26th, 1916. General health poor, came complaining not only of her eyes but of many symptoms. She had backache, pain in right side in thorax and epigastric region. She said she had "floating kidney" and "womb trouble." She was nervous and complained of bad taste, no appetite and sore mouth. She was constipated. Hemoglobin 75 per cent., W. B. C. 5400, Bl. Pr. 120, heart and lungs normal.

Ten or twelve years before consulting me her gums became diseased and separated from her teeth. Eventually she lost all of her teeth and when seen by me she was wearing false ones.

Eyes: Burn and can't see well. Itch very badly at times. Sclera "steamy." Conjunctiva slightly red and "milky" roll in the culdesac. Slight sero purulent dis-

charge from eyes.

Microscopical Report: Endamebae, staphylococci and diplococci present in discharge from eyes.

This patient improved with treatment of stomach plus alcresta ipecac tablets and boric acid camphor water in eyes. An error in vision was corrected by appropriate glasses.

Observations: Before closing my paper it may be well for me to state that I believe that a certain variety of amebae cause dysentery. I believe further that emetin is a specific for amebic infections. I will not now try to explain why only improvement and no cure has resulted from the administration, by me, of emetin for what I now denominate amebic conjunctivitis. Later when I have thoroughly proved or disproved the existence of such a disease I may be able to explain several things about it which I can't now.

Just here I wish also to say that I know there are several varieties of endamebae and that most of them are non-pathogenic. Wilson has established the fact which is now well known to students of eastern Carolina zoology that amebae are unusually plentiful in this section and that a certain form predominates which he calls Ameba Carolina. Zoologists know that amebae are more prevalent in spring and fall than at other seasons. Craig says tha tsixty-five per cent. of our adults show in the feces the non-pathogenic ameba coli and Lösch has practically proven that ameba coli is not the cause of amebic dysentery; that it, amebic dysentery, is caused by another form of amebae.

The claim that various forms of the amebic group are frequently found in the tartar about the teeth in healthy mouths and that therefore all amebae are inocuous invaders is reasoning erroneously. Smith and Barrett "regard these parasites as either directly causative of a large class of gingival and alveolar pyorrheas or as important members of a symbiotic chain with one or the other of the numerous associated vegetable micro-organisms in the production of these lesions." Webster says "It is to be said that the proof of the pathogenic importance of the endamebae in Riggs' disease rests upon their almost constant presence in the suppurating pockets of pyorrhea (while they are rarely found in healthy mouths), and the prompt removal of both suppuration and endamebae when emetin (first advocated by Rogers) is administered locally or generally. The organisms have not yet been cultivated so that the question of conformity with the classic postulates of Koch has not been investigated. Further many of the cases supposedly cured by emetin show recurrence after a few weeks' freedom from treatment. While there is no question of the presence of these amebae in cases of pyorrhea, it has not been firmly established, as yet, that they are truly pathogenic rather than "members of a symbiotic chain." It is evident, therefore, that more detailed study is necessary before the question of pathogenicity is settled."

Many able observers hold to the non-pathogenicity of endamebae while many others equally as able declare the pathogenicity of some groups. I submit these observations without comment further than to say that I believe some varieties are pathogenic.

The microscopical work on my cases has been done with marked ability by Miss Carrie Blount, microscopist for our hospital, to whom real praiseworthy credit is due.

"PELLAGRA."

By L. H. Howard, M. D., Jackson, Miss.

After nine years of diligent study and careful investigation, I have reached certain definite and dependable conclusions as to the cause of Pellagra, also the treatment and cure of this disease in all its forms and stages. Thissubject is well worthy of the most serious consideration by all, as Pellagra is one of the grave diseases to which America has fallen heir from the Old World. Before attempting to present this rational treatment, I will recite the following conclusions:

First.—After caring for hundreds of cases, I have demonstrated that over eighty-five per cent. of these patients as they come to the general practitioner for treatment are curable so that they are "well and stay well."

Second.—That diet alone, no matter how well selected, will cure very few, if any of these cases.

Third.—The true primary cause of Pellagra has not yet been found and it is not true that an unbalanced diet, as some have claimed, is wholly responsible for the disease.

Fourth.—It is transmissible or "catching" from one to another in a rather slow unusual way. A close study of cases in private practice indicates that long intimate contact with these patients is probably one of he greatest predisposing factors.

It is my personal opinion based on the careful observation and study of some thousands of cases, while under treatment, that the toxic germ or morbific en-

tity producing this disease, brings about the varied and unusual symptoms known as Pellagra, by viciating the function of the ductless glands, in greater part if not in toto. And in my efforts to cure these cases, I have done so with this idea of its partial or functional pathology in view. Always too with the most gratifying results. These curative agents, acting as they do through a corrective influence on the function of these glands can very readily and sensibly be placed under two heads, Direct correctives and Indirect correctives, although some of them act in both ways. The following are regarded as most valuable by the writer.

Arsenic.—This agent has given me the most satisfactory service in the treatment and cure of hundreds of cases of Pellagra during the past ten years, using the trivalent arsenic, commonly known as Cacodylate of Soda (P. D. & Co.) I have a very well defined reason for using this cacodylate, as I have yet to observe any serious local reactions from subcutaneous injections.

Gold.—Solution aurii et sodi chloride (P. D. & Co.) is given both by mouth and subcutaneously. I regard this preparation most indispensable, a double effect is secured from its most efficient and prompt curative action as it is also a nerve tonic and calmative. Patients with mental aberrations or dementia I have treated with the solution aurii et arsenici bromidi with satisfactory and permanent results.

Nuclein and protonuclein.—These preparations are given in tablet form, by the mouth, or the solution hypodermatically. I am convinced that the tissue metamorphosis is materially increased by their use. It is quite likely that the beneficial effect is direct as well as indirect.

Cooper's Well Water.—In my experience this natural mineral water is a most valuable and dependable dietetic aid in treating and repairing the ravages of this much dreaded pathologic visitant. It acts mainly as a direct corrective and probably acts indirectly also. The same may be said of Chloride of Soda when properly used.

Another matter which I am still experimenting with, yet which I wish to mention now, is the use of the extracts that are made from the glands of internal secretion, especially that from the infundibular portion of the pituitary body. They all are very helpful but the last named seems to be almost magical in its power for good in this dreaded yet prevalent disease.

I administer these extracts by the mouth only and, so far, in small doses three times daily. Five to ten drops of the infundibular extract. The combined extract in the form of tablets, two of which I have them take three times daily for five to ten days, then drop back to one three times daily. I shall gladly report later about this rather new addition to our therapy.

The following is a list of the indirect correctives: Cooper's Well Water, Digestives, Ferments and Enzymes, Hydrochloric Acid, a well selected dietary, the very best sanitation and hygiene.

In the care of cases of Pellagra, as is also true of Tuberculosis, it is extremely important to observe how, when and what the patient should be fed. The chief aim should be to eat as fully at the three regular meals as the condition of the digestion will permit, masticating slowly and thoroughly, keeping the mind free from all fret and worry during the period of eating and digesting the material.

At 10 a. m. and 3:30 p. m. the patient should take one or two glasses of whole sweet milk, in each of which has been stirred a tablespoonful of lime water. A liberal quantity of well buttered toast or wafers may be supplied with each glass of milk. If a change is desired two raw eggs may be substituted for the toast, wafers and milk. This full forced eating or feeding is one of the most essential things to consider in treating any case of Pellagra. And the benefit is secured by the patient, suffering from this disease in the same indirect way and through the same physical avenues and channels, as it is in tuberculosis.

The following list includes articles of food mentioned in the order of their importance and constant availability as well as their nutritive and therapeutic value.

Fresh Beef, good quality. Raw scraped sandwiches, rare steak or roast stand easily at the head of the list, even when thoroughly cooked beef is very valuable.

Milk, plain, with lime water, carbonated and peptonized, cream and buttermilk. These come next in importance to fresh beef in being constantly available as well as in food value.

Eggs, (whole or white only), boiled, poached, omelet or raw.

Fresh Fish, boiled, broiled or baked.

Oysters, raw or cooked.

Game or Wild Fowls, whenever obtainable are especially beneficial.

Vegetables, in season, of which beans and peas may be preferable on account of their similarity in food content to meats.

Nuts, all nuts, wild or domesticated, seem to be especially good. The pecan is the most easily obtained here in the South and is superior in food value to any other. Great care should be exercised to masticate very thoroughly or digestive disturbance will result and harm be done.

Fruit, if fresh and ripe, may be taken as desired, but not at times when it will interfere with the ingestion of more important articles of diet.

Bread and Cereals, any kind may be eaten, but that made from whole wheat or graham flour is best unless the bowels are too active, in which case rice, white bread and toast should be selected. But best of all I have found is the **Cornpone**, Egg bread, Egg bread muffin, corn meal hoecake, all palatable and efficient in a nutritive way, if made from **home grown, home ground, home or hand sifted corn meal. Made from "Live Grain,"** i. e., corn with its germinating power, properties and chemical vitality undestroyed or disturbed by any process, heat, kiln-drying or otherwise.

For a bread to serve its full purpose as a nutrient material in the human "grist mill" or body, it must of a necessity have this chemical entity in its entirety, by which, under the proper conditions in the soil and at the season, it can and will germinate, develop and propagate its kind. This property or germinating power in the grain from which our bread is made feeds, stimulates and vitalizes the highest and like function in the animal economy feeding upon it, this beyond question is true. And all this is just as true of the breads, breakfast foods and edibles made from wheat or any other grain, as it is about corn.

Drinks, pure fresh water, whole sweet milk, hot chocolate or cocoa. It is important that no coffee, tea, coca-cola or stimulating narcotics are taken.

THE HABIT OF SELF-MEDICATION.

By C. W. Canan, M. D., B. S., Ph. D., Orkney Springs, Va.

It has been said by one of our great statesmen that, "the American people loved to be humbugged." Some one else has said that "we are a Nation of gamblers." The above are both true in many respects and in no phose of life is it better illustrated than in self-medication. Statisics gathered from all parts of the United States reveal the fact that as many persons are brought to an untimely death, either directly or indirectly through self-medication as die from all diseases combined leaving out the diseases of childhood.

Our propensities for gambling as a Nation is shown in its worst light when we gamble on ourselves. Our stomachs have been turned into slot-machines, into which its possessor takes pleasure in thrusting any preparation he sees advertised, not only in magazines, newspapers and circulars, but upon the walls of houses, on fences, trees, and rocks along the highways: all these he swallows without thought or remorse, if upon that circular advertisement he sees that seductive word "cure." These pattent medicine circulars, almanacks, and advertisements in the newspapers are worded so as to delude the unsuspecting public. The men who write these ads. are artists in their profession and get big pay for their work. They have followed it for years, studied every phase of the pattent medicine business especially so as to catch the eyes of the public. They never fail to add a long list of symptoms that even a person in fair health will be like to experience one or more of them, and therefore conclude that it is the very remedy needed in their case. There are many people who after reading and studying these carefully worded advertisements, in almanacks, circulars, folders and the daily press regarding their livers, heart, kidneys, womb, nervous system and other parts of our anatomy become morbid, hysterical and finally decide that they have organic heart trouble, "Brights," gastric ulcer or some other equally morbid condition.

Poor deluded souls, they are laboring under a delusion of being ill. Thousands of this class take medicine unnecessarily without consulting a physician, willing to try their luck in "cures" same as they would try it in cards at the faro-table, and become chronic dyspeptics, neurasthenics and drug fiends in consequence.

Instead of seeking advice and pure drugs from those who have spent years of time and much money to qualify themselves to give such advice; they will continue to pour drugs of which they know nothing into a system of which they know less, and will keep on trying their luck changing only when they see some more alluring advertisement than the last that is calimed to be a "sure cure."—4—11—44—you pay your money and take your choice. A veritable lottery on life! The great lottery drawings of The World, publish a list of the few capital prizes that are drawn, but what about the names of the thousands that get nothing, are they published? No, it is not intended that the names of these should

be known. The same is true of pattent medicine. The thousands whose constitutions are ruined, the hosts that receive no benefit, and those who fill an untimely grave are never heard from. The free samples, or thirty days' free treatment, is another scheme to bleed or deplete the pocketbook of those who are always ready to part with their money for pattent medicine. When you have once accepted to give it a trial you will have no peace unless you continue the treatment costing from $2.50 to $5.00 per month. If no cure is effected you are to have your money back. It is all so plain and easy you are to be your own judge, whether you have been cured or not. Does any one know of one well authenticated case in which this promise was ever fulfilled?

The writer does not know of one single instance in which the price paid or any part of it was returned. These foxy people know that you can not afford to enter suit against them for the recovery of your money. This would be throwing good money away, after bad, and they know they are safe.

What a saving to the individual to each community ,and to the State; and how fortunate it would be for humanity in general, if the tons of headache powders, the barrels of tonics and blood purifiers, and the car-loads of pills and tablets advertised to cure every thing to which flesh falls heir, were thrown into the ocean rather than into the stomachs of people who scarcely know the name of a bone or muscle in the human body or the function of a single organ therein.

Thousands of dollars are spent annually for nostrums that are advertised to cure consumption. One would think that the public could not be duped, or induced to buy a remedy said to cure consumption.

Of all diseases, none have been so much talked about, wrote upon, and read after as this one, that it would seem every school boy would be convinced of the falsehood embodied in these advertisements. The public must know that many of the brightest men in the medical profession have spent their whole lives in trying to discover a remedy that will cure this disease. That wealthy men, both of this country and the Orient have donated freely of their wealth to establish institutions of research and pathological laboratories so that this disease could be studied under the best possible advantage, and yet no abslute cure has been found.

In the face of all this the public will continue to fill the coffers of these advertising quacks, with their hard-earned dollars. Can't something be done or said to stop this deplorable condition. Can't these people be induced to spend their money fr good wholesome food and warm clothing and learn to live out in God's pure air and sunshine. These will come far nearer producing a cure than all the nostrums in this or any other country.

ELECTIVE SURGERY IN ACUTE ABDOMINAL CONDITIONS.*

By W. C. Gewin, M. D., Birmingham, Ala.

There is no one department of our art more fraught with possibilities of good or evil than elective surgery in abdominal conditions. Many lives may be saved and useless suffering prevented by early diagnosis and prompt surgical action, two phrases very easy to say, but too often hard to carry into effect. Often the surgeon realizes that the time is ripe for action, but allows himself to be diverted by the self-blinded patient who has never before had a stomach-ache that a pill would not cure. It must be made plain by the surgeon that this is no time for purgatives nor opiates.

The first essential of a correct diagnosis is recognition of the patient's present symptoms; next his previous history; laboratory examination, if doubt exists and time permits, but where one is satisfied as to the nature of the disease and urgency of immediate action, I do not advise the extra expenditure of valuable time. Of what real value are absolutely correct test meal details obtained after several hours or perhaps several days examination, if your patient's condition has passed beyond your skill?

For example, we know that ectopic pregnancy may occur without any of the signs of ordinary pregnancy; yet, remembering that rupture into the peritoneal cavity is a very fatal occurrence, and that in most cases death results in twenty-four hours, we should satisfy ourselves as quickly as possible and act immediately. Whether it be discovered before rupture, at the time of rupture, or afterwards, the time to act is "now." waste no time in laboratory tests, at the same time giving the necessary stimulants, saline infusions, etc.; give them, by all means while yo uoperate.

Again, what practitioner has not been called hastily to attend a sudden and severe attack of appendicitis; he gives his diagnosis and advises his patient as to the many dangers attendant and recommends a speedy operation. He is an-

*Read before the Walker County (Alabama) Medical Society, Jasper, Ala., October 14, 1916.

swered in this manner, "Doctor, isn't there anything else you can do for me?" And, too often, against his better judgment, he does something else.

Drastic purgatives kill many, convert simple and inflammatory conditions into serious surgical conditions and help none. I do not know o fany class of agents, or method of treatment so fraught with dangerous possibilities, so universally demanded by the laity, so frequently administered by the profession; yet every surgeon's experience will verify the statement of disastrous effects in the operating room and in post-mortem.

The second demand, when it is not the first, is for something to ease the excruciating pain. By all means, give this; but not until the proper time. You want him to suffer until you satisfy yourself as to location, cause, and extent of his sufferings. Then, in order to follow your course of treatment it is necessary to administer an opiate.

It should be borne in mind that many acute surgical conditions are not so at the outset, that they only become so if neglected or improperly treated. In such conditions the trite phrase, "Eternal vigilance is the price of safety," was created. Many acute abdominal disorders give ample warning which if heeded and obeyed will not only save many lives but give the doctor an enviable reputation. Continued intestinal pain accompanied by varying temperature, constipation, nausea, localized tenderness, followed by soreness, should all be regarded with suspicion intense enough to cause complete examination.

The intense pain and nausea are nearly always accompanied by variation in the pulse. It is usually increased in its rate, although occasionally it is slow and weak. Many doctors, who have not kept in close touch with such abdominal conditions confidently expect a rise in temperature, and base a diagnosis upon that, whereas, few of the most acute surgical abdominal disorders are attended by it until they are past the first stages.

Appendicitis has become such a well known complaint that almost every physician considers himself competent to give a correct diagnosis; yet no disorder is more deceptive or more urgent in its demands of the best diagnostic skill.

The first symptoms of inflammation should be a reason for the removal of the appendix, but too often are these symptoms mistaken. The perforation of the appendix is often unrecognized until the rupture of the abscess causes a deffrise peritoneal infection; or, on the other hand the innocent appendix is removed, and the trouble existing in the adjacent organs is unsuspected. The time to be conservative is in diagnosis and the time to be urgent and drastic is in treatment.

How often is the primary appendix operation followed by a normal recovery, only to be succeeded by a recurrence of abdominal pains with added symptoms of perhaps greater malignancy; without increased diminution of such cases we cannot consider ourselves as near the goal of success as we desire. There are two great fields for our work in this plan of elimination; post-operative adhesions and thorough examination of the intestines, especially the colon.

Adhesions we have always with us and we have many theories and explanations, yet still the adhesions. One surgeon says, work rapidly, use sponges, packs, etc.; wet in hot saline solution, yet, he still has occasional adhesions. Often the longest operation, or the roughest one, is the one that gives no post-operative trouble. Until we understand the reasons for this, and the correct method to be followed to avoid them, we can never be sure of the ultimate results.

I have been speaking of acute abdominal diseases. There is another equally important department of abdominal disorders comprising those occurring in the large intestine. Among those are your chronic cases many of them referred to you by other doctors, who, "does not know what to do with them." The patient has suffered for months perhaps years, with constipation, sick headache, languor, nervousness, loss of memory, etc.; the doctor tells you that he suspects mild auto-intoxication. In such a case there is time for thorough examination.

The first step is a thorough X-ray examination, both by stomach meal and colon enema. By the meal the stomach is either cleared of suspicion, or if disease is present in that organ its presence verified and its connection with the patient's condition ascertained. Also, any retention about the caecum is clearly defined. The enema, if properly given delineats perfectly the formation and position of the colon.

Any constriction malignant or otherwise, is immediately shown. Much has been learned by X-ray findings, not only are diseased conditions ascertained, but it is clearly shown that there are many variations of the so-called normal position of the abdominal viscera. It is now an established fact that the large intestine almost never lies in the regular curves and lines of the old anatomist. But the X-ray clearly shows pronounced ptosis or defined intestinal stasis. How-

ever, colonic operations should be judged also from the viewpoint of the medical clinician, the neurologist, the psychologist, the bacteriologist, in order to judge just which form of operation should be decided upon. Even then, with the abdomen opened before us, it is not always easy to decide which fold or which adhesion is at fault, whether the intestine can be side tracked or whether it needs excision, and all these factors enter into the subsequent cure or failure. "The intestine is not a simple pipe that can be cut and soldered or placed in what is considered the proper position and kept there. It is an organ of constant motion depending upon its contents and the position of the patient."

In this work as in every other department of our profession, we must never allow ourselves to be deluded with the idea that we have reached the goal; to remember that what we have learned is just one more step in the vast realm that lies before us. So let us not be deterred b yany obstacle or discouraged by any seeming failure.

"DER DAMMERSCHLAAF."

By John S. Winter, M. D., Memphis, Tenn.

There has been so very much discussion regarding twilight sleep that I feel constrained to add my mite, be it worth little or much.

I wish to preclude my remarks with the statement that in the five years I have practiced medicine I have had a considerable number of obstetrical cases, and in not a single instance have I given inhalation anesthesia of any kind, neither ether, chloroform or gas, but have used morphine and scopolamin or hyoscine, morphine and cactin. In not a single instance have I had a prolonged labor, excessive postpartum hemorrhage or delayed recovery from confinement, nor have I had to use any means to resuscitate any baby delivered, but on the contrary, every baby born began to snuffle and then to cry the moment the head was born.

I did not make the foregoing remarks for any purposes of advertising my own method, but merely to add my testimony to others that confinement cases may be managed successfully in the hands of competent men by the use of hypodermic anesthesia without remembered pain to the mother or bad after-results to either mother or child.

It is very apparent that the great majority of physicians have an unshakable opinion that the twilight sleep consists solely in the mere administration of a certain quantity of morphine and scopolamin, or narcophen and scopolamin, and then sitting back and awaiting the certain arrival of a fine, healthy baby of either sex desired, at the exact time set beforehand by the accoucher and without the slightest recollection of pain by the mother, followed by a drive on the boulevard the next afternoon and attending the opera within the week, where without the use of the twilight sleep they could not even hope for a viable child, and then only after the mother had suffered agonizing torture for hours or days from which she never fully recovers.

The entertainment of such opinions most certainly prove that whatever its possibilities in the hands of competent, experienced men, amid the most favorable sanitary and psychologic surroundings, it is most emphatically not a method to advocate broadcast among the rank and file of the profession, many of whom are without the possibility of even suitable surroundings.

Twilight sleep certainly does not consist solely in the administration of a certain quantity of potent drugs; that is the smallest part of the procedure, but to administer twilight sleep as it is intended to be administered necessitates absolutely:

First: A knowledge of your patient, her temperament, previous and present health, her idiosyincrasies against drugs, food and persons.

Second: The confidence of your patient; her faith in her obstetrician must be strong; his presencec must be soothing to her overwrought nerves, if she is nervous.

Third: Competent and trained nurse or nurses, who are more than capable, and who have a soothing personality and intuition in excess.

Fourth: Surroundings as regards asepsis; the cleanliness and simplicity of an operating room, softened of its severity as much as possible without defeating the object most desired, cleanliness. No home is ever intended for use in the administration of this method, although a well kept, comfortable, clean, and, above all, quiet and peaceful home, is more to be preferred than a noisy and poorly conducted hospital, and a large percentage are such.

Fifth: Surroundings as regards the psychological part; everything must be of a quiet tone, not only regarding noise, but in the matter of wall covering, pictures, glaring lights, attendants, conversation and everything that the patient comes in contact with must be quiet without being somber, confident but com-

*Read before the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, November, 1914.

posed, polite but firm—in short, the patient is impressed with the stability, the sureness, the serenity and capability of it all to such a degree that her fears are more nearly allayed and she gives herself into the hands of her physician and attendants with almost, if not perfect faith and expectation that she will go through her ordeal with perfect safety and success.

Annoci-association was never used in a better place than here, and the subconscious brain should have a minimum of unpleasant recollections and expectations registered thereon.

Sixth: Absolute knowledge of the potency and action of the drugs to be used.

Now we have our patient in the proper surroundings, the time of her confinement has arrived; her fears have been allayed; she has been instructed as to her part, has been impressed with the capability of not only the obstetrician, but every one of his assistants and her attendants, she feels that she can safely trust those around her to take her safely through "the valley of the shadow of death," as it has been most aptly called, and bring, not only her, but her beloved, expected babe safely, painlessly to the goal of perfect, capable and healthy motherhood and happy life.

It is a beautiful picture, but one which can only be drawn and realized after the obstetrician has absolutely determined the physical factors of both mother and child, which would preclude the drawing of such a picture, for it is absolute fallacy to imagine for even a moment that the administration of any drug or system, however potent or efficient, could or would remove any serious mechanical cause of dystocia, such as contracted pelves and other bony abnormalities, or bring into the world a well-formed and healthy babe that in the mother's womb was sickly, ill-shaped and deformed. True, in a great measure it may alleviate these troubles by insuring the minimum of trouble with a maximum of help, but perish the thought that all, with the method of twilight sleep, will be glory and bliss. There will still remain the same percentage of abnormal birth canals and misshapen fetuses.

All these things determined beforehand, all things ready, and this includes the vaginal toilet of the mother, her bowels emptied, her bladder empty, the first pains of labor have begun. Little, fleeting pains, nagging pains they are called, not enough for an opiate, or only a mild one. Examination with sterile rubber gloved hands reveals a rigid, undilated os; perhaps the doctor will administer ten or fifteen grains of quinine as an oxytoxic; the presenting part becomes engaged in the upper canal, the bag of waters push against and dilate the os, the parts become softened and the os is now dilated probably two inches; the second stage of labor is now on. Pains begin to be intense; now is the time to administer your drug, morphine or narcophin and scopolamin, or hyocine, morphine and cactin, if you wish. In a few moments, if you have gauged your dosage correctly, your patient ceases to complain; she sleeps fitfully between pains; the bag of water has burst, or has been punctured; the presenting part is firmly engaged; labor is well under way.

It is here that the obstetrician can help the little voyager in its descent through the narrow channel by a little push on the presenting part with his sterile gloved hand in the vagina, pushing the lip of the cervix up between pains, moving the presenting part slightly from side to side, or forward and backward, loosening it up a little, so to speak, so that nothing in front will interfere with the force from behind. It is here that the administration of pituitrin extract, always with a perfect understanding of your case, is productive of great help by inducing powerful, continuous, expulsive efforts of the uterus, thus facilitating the delivery of the fetus to a marked degree.

It is here that the obstetrician must look to safeguard the perineum to save it from rupture, and he is thus put to the expedient of holding back the oncoming child and making pressure upon the perineum to preserve its integrity until such time as it will have dilated sufficiently to allow the passage of the child. It is more often that the shoulders, which have been allowed to deliver themselves, tear the perineum, than the head, which has been closely watched during the critical period, neglecting the shoulders while seeing that the cord is disengaged, or that the pad is there to lay the baby on, or while engaged in getting the mucous out of the baby's mouth and nose, on protecting the couch from being soiled, or the floor soiled by the gush of ammiotic fluid, or some such reason.

Then there is the matter of the afterbirth. It very often happens that the pains cease after the birth of the baby, and your patient is content to go off to sleep with no concern about you, the baby, or the after-birth. It is only by massage over the uterus, a little patient waiting, or if the cord is not severed until all pulsations have ceased in it, the placenta will usually have separated from the uterus and is ready in a very few minutes

to be delivered from the vagina without trouble or hemorrhage, after which it is usually routine to administer ergotole hypodermatically.

So it is most positively and emphatically not by the simple administration of certain prescribed drugs that twilight sleep is constituted, but by a mode of procedure, some parts of which are as old as the birth of man, together with a knowledge and complete understanding of your patient, the physical and mental factors concerned in the case, proper and most carefully selected and prepared surroundings, absolute knowledge of the potency and action of the drugs used and intense efficiency on the part of the attending obstetrician. All of these things are embodied in and form an indivisible part of the, not drug, but method, of twilight sleep.

Twilight sleep is essentially a luxury of the rich or the very poor, who, under our system of well-equipped hospitals, enjoy more nearly the advantages of the rich, but for the modest wage earner, who is able to pay only a small obstetrical fee, and who will not accept charity, it is out of reach. Therein enters a most disturbing element to disturb the equanimity of the poor (financially) prospective mother, the care of the child after it is born, and what mother can think calmly of the future for her child harrassed by lack of means, by debt, and poverty? It is here that the fianancially rich mother gains over the financially poor mother in mental serenity through the thought that her offspring will be well cared for, surrounded by every advantage, high on the social ladder, a prospective, petted child of luxury. Nor need she from any financial reasons cry out, as did the pious but many times father, "Lord, withhold thy blessings."

The advocacy of the general use of this method would be to invite a large mortality and morbidity in both mother and offspring through misuse and ignorant use of the very potent drugs used. It would certainly and most properly bring about a storm of protest from over the entire civilized world at the havoc wrought by these most powerful agents in the hands of incompetent, careless and ignorant accouchers.

Let no man attempt to employ this method unless he thoroughly understands every part of it, and only then when surrounded by the most ideal conditions. This most powerful agent in the hands of competent, thinking men, for the alleviation of the pains of childbirth, in the hands of a novice or incompetent becomes an equally powerful agent for evil, and can accomplish much toward the abolition of the confidence of the expectant mother and of the world in general, for the attending physician and the entire medical profession.

Not by the wildest flights of fancy can I conceive of this method being adopted by the general practitioner for use in routine practice in the homes of his patients, be they rich, poor, or in moderate circumstances. Except in the most exceptional instances can this method be employed in the private home, necessitating, as it does, absolutely sanitary surroundings and trained assistants of the highest order and trained for this work in particular.

How, then, can the general practitioner hope to employ this method? He cannot. In the hands of trained and competent men, under the best of surroundings, it is a safe and positive agent, a long step toward the ideal; rather, then, let not the general practitioner condemn it utterly, but consider it, as it is, a specialty, applicable only to those who can pay for the very special requirements for its enjoyment.

Central Bank Building.

REED'S BACILLUS OF EPILEPSY

By A. J. Hinkelmann, Galesburg, Ill., Director Galesburg Laboratory.

Through the work of Reed,* the question of a specific organism as the exciting cause of the seizures of Epilepsy has been set forth. Having previously worked from a different basis with an organism I believe is the same as the one isolated by Reed, and having since the appearance of his articles, succeeded in finding the organism in the blood of an isolated case of epilepsy, I am in a position to add a few facts to what Reed has already said. I am sure this will be of further aid to the profession in the direction of reaching final conclusions as to the significance of the organism.

Method of Invasion of the Human System.

Under this head, Reed has made very clear the point that the organism is evidently taken into the intestinal tract by way of the mouth, and enters the blood through a cecal or an appendiceal focus, and leaves the question open as to the danger of communication. What would be the consequence in case the organism was ingested by a normal individual, and to what extent may those with predisposing lesions expect to escape infection?

From a basis of experiments I conducted during the summer of 1915, and before I had any knowledge of the path-

ology of the organism, it may be stated that it is a very frequent inhabitant of the intestinal tract of probably the majority of people. My conclusions at the time of my experiments were that it is one of the regular members of the so-called intestinal bacteria.

*Reed, Charles A. L.—Journal of the American Medical Association, January 29, and May 20, 1916.

My interest in the organism was its high resistance to germicidal agents, and through this fact it becomes an easy matter to demonstrate its presence in the intestinal flora and also that it is commonly present. It will live in phenol solutions of from 5 to 10 per cent. for many hours and a much higher strength is necessary to kill it instantly. Among the very large number of different species of bacteria that are usually found in the intestines, it is commonly the only one that will survive a thorough treatment of the stool with a 5 or 10 per cent phenol solution.

My method of isolation was as follows: From 25 to 30 grams of solid feces were made into an emulsion with 50 cc of a 5 per cent. solution of phenol and allowed to stand for 30 minutes or an hour; cultures were made on agar slants and incubated. I have never made such cultures from the stools of epileptics with the view of noting how numerously the organism is present, but in normal individuals, a loopful of the above emulsion spread over an agar slant will yield from 1 to 6 colonies after twenty-four hours of incubation.

The organism is highly haemolytic, and to this last fact may be due a part of the pathological conditions present in epileptics. Cultures made on blood agar plates will show a haemolytic spot at the point of a growing colony long before the colony itself becomes visible. In the case that came under my observation, I found it abundantly present in the capillaries, and both the spores and the organism could easily be demonstrated in smears from the blood directly.

Conclusion.

In view of the fact that the organism does enter the circulation and there multiplies into great numbers and is so generally found in the blood of epileptics, the conclusions of Reed as to its specific nature become at least very plausible. It would be hard to conceive that an organism with such a high haemolytic property could enter the circulation and multiply to such numbers as smear preparations from the blood indicate without producing diseased conditions within and resulting in corresponding clinical manifestations without.

At any rate, what has already been established in regard to the organism makes the question one most worthy of serious consideration and extensive investigation. The universal presence of the organism in the intestinal flora is no argument against its probable pathology, but simply adds to the importance of the gateway through which it enters the blood stream, in consideration of the question of treatment.

If further investigation should finally establish that the Bacillus epilepticus is the exciting cause of the seizures of this disease, little probably can be hoped for in the way of prophylaxis or cure through efforts to prevent the organism from entering the intestinal tract or to eradicate it when present. The best attention probably will have to be directed toward those lesions which open the way for it from the intestines into the circulation.—New York Medical Journal.

Legend.

Bacillus epilepticus directly in blood smear from an epileptic patient five hours after seizure.

The Increase of Tissue Resistance.

The importance of increasing tissue resistance is best appreciated when one is called upon to treat a serious infection in a run-down person. Thus a pneumonia or bronchitis is so much more dangerous in an aged or debilitated person whose tissues have lost their usual power to throw off disease—that is, resist germ invasion.

For this purpose cod liver oil is of the utmost utility but an essential point is to choose a preparation that not only contains the active medicine and strengthening properties of the oil but which also is so palatable that its administration may be continued over long periods of time. Cord. Ext. 01. Morrhuae Comp. (Hagee) is such a product. A generation of doctors have used it and learned to rely upon it.

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EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE, N. C.

DIAGNOSIS HOSPITAL TO BE ESTABLISHED IN NEW YORK CITY.

Following up with apparent activity the suggestion of Dr. Charles H. Mayo in a recent address, comes the announcement in the daily press of New York of the opening shortly in the metropolis of a hospital to be devoted exclusively to rendering diagnostic service to physicians and patients in all obscure or other cases where the diagnosis is not readily apparent by ordinary methods in the hands of the general practitioner. According to Dr. Mayo and the promoters of the new type of hospital, there exists a "long-felt want," as the reviewers are wont to note, for the development of this class of medical institution. And there may be a fitting field of opportunity for such a type of institution, and the developing of a newer field of specialism, but naturally the average man of medicine will wonder where the possible inroads of specialism are to cease, and to ask himself the pertinent question, Why the general practitioner, if only to refer the patient?

Not so many years ago, it was taught by our wiser men of medicine, that a student should not essay the difficult feat of perfecting himself on a special line of diagnostic, operative or therapeutic endeavor, until at least several years of contact with the varying phases of human disease as seen in a general practice, had laid broadly the foundations of medical knowledge. The growing practice is now to rush from the final college and hospital year into a specialty without the broadening influence of this desired experience with disease in general and the people of all phases of life.

Is it best for the profession? Is it best for the people on whom we practice? Both queries may go unanswered or replied to differently, according to the view point. One thing is clearly manifest in the newer hospital specialty, whether the profession at large think it desirable or not, the constant multiplication of specialties in practice and institution rapidly hastens the oncoming era of State medicine—State medicine in the newer use of the term as indicating the system which will insure every person ample and proper medical and surgical attention, and insure every medical practitioner prompt payment for professional service. Already the progressive State of California is seriously considering such possible rearranging of medical practice, in part at least, and the State Medical Society has recently had several papers presented at its session bearing on varying phases of the subject, while a number of measures looking to establishing such a system of caring for the sick, are being considered by committees of the State Legislature. May it not be more than possible, the increasing tendency to specialism in the East, is in a way, tending to bring rapidly up for our consideration in America by the medical profession, the serious questions that all but rent the British medical profession in twain only a few years since, but which after being solved by parliamentary action quickly adjusted themselves, and to the apparent betterment of the financial condition of the average English doctor?

. H. W.

IS THE PHYSICAL TRAINING OF STUDENTS IN THE AVERAGE MODERN COLLEGE ON THE PROPER BASIS?

The recent annual recurrence of activity in intercollegiate athletic contests throughout the nation and the large share of newspaper and other attention excited renews once more the question at the head of this column. That the intended use of college athletics is for the purpose of securing the highest possible development of strong and healthful bodies for the encasing of the student minds no one questions.

But it may seriously be questioned if the present system of physical culture as practiced in the many colleges of the country seeking its climax in an intercollegiate contest that will show the possession of the stronger team, really and truly contributes in any very great degree to the physical betterment of the masses of the student body in any given institution of learning.

In former times, the successful leader of the college team with his stronger colleagues, were looked upon by all as splendid specimens of the man physical, but more recent studies tends to show the pernicious after effects of the supertraining systems to which their excess development was justly attributable, and with the more general recognition of the fact that the average college athlete with his overtrained muscles and his oftimes hypertrophied heart, is actually less well fitted for the race in life, and positively ends his earthly career according to insurance mortality tables earlier than the ordinary college student who did not at-

tain the honors of "the team."

As a valuable advertising agent for the attraction of students to a given institution of learning, a strong athletic team is unquestionably a valuable asset to a college, but is it not possible to so rearrange college physical cultural systems in a way that will practically assure the development physically, of every student to a reasonable degree and, if desired, still secure from among the strongest, so inclined, a winning team for publicity purpose.

That physical cultural methods are as vital portions of school and college training no one concerned with the full development of young people will for a moment question, but there are many thoughtful men and women who seriously object to athletic training as carried on in the average modern school today, and the signs of the times point to the necessity of an early revision of methods and systems.

That the physical development of the student should begin in the primary institutions, is a self-evident fact, and it is very doubtful if as yet any better plan has been devised than the so-called old fashioned soldiers' drill. Added to the stimulating contact with one's fellows in the spirit of friendly emulation in activity and manly bearing when on drill, the conscienciousness of "playing soldier" is always and ever will be, possessed of a certain charm for young minds, and a well grounded knowledge of the manual of arms is an attainment no young man or young woman need not fail to be proud of having attained, especially when it is remembered the acquiring of it has carried with it the developing of a bodily betterment and a comeliness of carriage that will be an attraction during life.

Possibly one of the most beneficent results indirectly accruing from the horrible holocause of human gore now bestrewing the fields of Europe will the popularizing in the primary schools as well as the colleges of our country of the soldiers drill, and well it may, for if never needed for our country's defense, it affords an admirable opportunity for developing the masses of the young people not to be afforded in any other way as yet made practical and popularized as well.

Beginning in the primary schools of the State, and continuing through the college courses, there should be instituted now and regularly carried out a system of daily drills in the manual at arms. To the higher institutions of learning, the Federal authorities should delegate instructors, as is done at present to the A. and M. Colleges of the various States, while to the primary schools, the State itself should afford competent instructors in military drill and tactics thereby accomplishing the dual purpose of bettering the physical statue of the coming generation, but as well preparing our peoples for what appears to be, the coming inevitable system of universal military service, for a short time at least in early manhood, of every able-bodied male. Without subscribing wholly to the extreme milittaristic views so strongly held in some quarters, it is manifest to all observers, the present average college system of physical instruction is lamentably weak and inefficient in that it fails to properly reach the masses of student bodies, only physically educating the favored few who "make the teams," and apparently a systematic cultivating of military drill systems of daily physical development, is the fittest remedy in sight for the taking of the masses of students from their favorite places on the stands as interested spectators of the physical exercise participated in by the few, and compelling the cultivation of a truly democratic spirit in instructing all inhealthful exercises. J. H. W.

ANNUAL SESSION SOUTHERN MEDICAL ASSOCIATION IN ATLANTA, GA.

The regular annual session of the Southern Medical Association was held in hospitable Atlanta, Ga., November 13 to 16 inclusive. Nearly two thousand doctors from the fifteen constituent States were present in the city during the week of the meeting.

The Association may be said to have held its most successful session in Atlanta, for at this session the vexed financial situation of a deficit which has confronted the organization for some years past was successfully worked out by a number of gentlemen subscribing one hundred dollars each. In this way the goodly sum of $10,000.00 was secured for stock subscriptions to The Journal which will liquidate, it is said, the entire indebtedness of the Association, including the deficit on The Journal, and leave more than $3,500.00 in the treasury. The reports of the Councillors, made previous to this subscription, showed the affairs of the Association progressing toward a satisfactory conclusion as regards the business conditions, and a feeling of genuine optimism prevailed on all sides to the effect that the Association, and its ably edited Journal, were each in turn filling a needed place in Southern medi-

cal life with a brilliant future of accomplishment ahead.

Scientifically speaking, the meeting was a splendid success in every way. The general average of papers was fully up to the high standard already established in previous years by an untiring and efficient secretary and a membership composed of the professional best in the South, the discussions partaking of the short, direct type characteristics of medical society debates where the members know what they desire to say and express themselves with due regard to time limitations and scientific accuracy. Many of the leading clinicians, surgeons, public health workers of the South were in attendance, and the entire four days' program was in every section carried on with satisfaction to the chairmen, secretaries, and the membership as well.

In each section a wealth of valuable papers were contributed and with infrequent exception an author was ready to respond when his name was called. With all this ready and prompt attention to business, there was another and most charming social side to the great gathering that finds most delightful recollections treasured by those fortunate in partaking of the genuine Georgia hospitality so lavishly dispensed by Atlantans during the week.

The gigantic opening session held in the spacious auditorium might well have reminded one of a great national meeting of distinguished celebrities from many lands and climes, fittingly decorated, appropriately lighted, and with many fair women among the Atlantans, who with the Governor, Mayor and others came to welcome the doctors to the Gate City of the South. The many private functions, the Capital City Club Reception and Ball, the famous barbecue at the Druid Hill Country Club, with its flow of spirits, wit, and wisdom pleasingly mingled, the drive to famous Stone Mountain, the evidences met at every turn of a disposition to do everything to make happy our stay. This spirit could but render the session most felicitous!

Of Atlanta, its splendid spirit of enterprises, the "very presence of the Young New York in the air," as one doctor enthusiastically expressed it, need more be said? Her victories in commerce and business are fully equalled by her success in ministering to the medical strangers recently within her gates, whose chief regret was on leaving, whose joy will be to return again at early opportunity.

The various accessory organizations which annually convene at the time and place of the session of the Southern Medical Association, the Southern Woman's Medical Association, the Southern States Railway Surgeons Association, etc., etc., held their meetings on Monday of the week. A number of gastro-enterologists also organized and formally launched during the week, the Southern Gastro-Enterological Association which adds another to such societies meeting with the S. M. A.

The paediatrists, under the successful guidance of Dr. Lewis W. Elias of Asheville, N. C., secured by the Association the establishing of a new section devoted to Paediatrics which will for the first time take its place in the regular sections at the 1917 meeting.

The four hundred North Carolina members of the Association were ably represented by leading men from Raleigh and the western portion of the State particularly. Among the dozen giving clinics in the Atlanta hospitals, including eminent and widely known men in the profession like Stuart McGuire, Bass, Thayer, Bloodgood, and Barker, none attracted more favorable comment than the tuberculosis clinic by Charles L. Minor of Asheville, or the gynaecological clinic by J. W. Long of Greensboro. The admirable program and large attendance on the sections of Practice and Public Health were conceded to have resulted in large degree from the excellent work of Dr. Thompson Frazier, of Asheville, and Dr. L. B. McBrayer, Sanitarium, N. C., while the papers presented by leading Carolinians were noteworthy as among the best heard at the session.

No less than five leading Southern cities urged their claims for the 1917 session, but Memphis won, while there was a general understanding that Asheville, N. C., would in all probability receive the following meeting in 1918.

Dr. Cary T. Grayson, President Wilson's personal medical adviser, selected by himself from the many excellent gentlemen of the profession in the Navy, was present as a delegate representing the Federal service and contributing in no small degree to the interest of the meeting. His address on "The Doctor's Work for Naval Preparedness" before a large audience was well received. A gentle gracious Southern gentleman, a man of learning and widely traveled ,his presence is an asset to any gathering fortunate in having him.

On Tuesday evening, the medical women present banquetted at the Piedmont, and later attended the Capital City ball.

Wednesday evening the Vanderbilt Alumni regaled themselves with a ban-

quet at the Piedmont attended by more than fifty. Short talks were made by Duncan Eve, Witherspoon, Oscar Dowling, Jere Cook, L. E. Burch, J. Howell Way, Charles Cason and others, and an enjoyable time was reported.

Johns Hopkins Alumni enjoyed a reunion and dinner at the Georgian Terrace Wednesday evening, and Thayer, Bloodgood, Barker, and others contributed to the enjoyment of the more than forty alumni present.

Florida State Board of Health, under Dr. Porter's direction, had the two exhibit cars which make up the "State Board of Health Train," on hand and open to inspection. Avisit to the train was an instructive feature of the many interesting things in evidence at the Atlanta meeting.

The Southern Gastro-Enterological Association was organized with the following officers elected:

President—Dr. J. C. Johnson, Atlanta, Ga.

Vice-President—Dr. J. T. Rogers, Savannah, Ga.

Secretary-Treasurer—Dr. Martin H. Smith, Jacksonville, Fla.

Councillors: Dr. George M. Niles, Atlanta, Ga.; Seale Harris, Birmingham, Ala.; S. K. Simon, New Orleans, La.

Committee on Admission and Ethics: Drs. J. E. Knighton, Shreveport, La.; G. C. Mizzell, Atlanta, Ga.; J. B. Fittz, Atlanta, Ga.

Membership will be limited exclusively to those treating diseases of the digestive organs.

The Euorpean war came in for its share of consideration at an open session when Dr. Rosallie Morton of New York described her experiences in Serbian relief work and Dr. Al Gilchrist, Gainesville, Texas, spoke on his observations in the Turko-Balkan war and the European war.

The public addresses to the laity were helpful features of the Atlanta meeting. Special note should be taken of the address of Dr. Oscar Dowling, president of the Louisiana State Board of Health, dealing with the "patent medicine" business and its baneful effect on society and the community health. Addresses like Dr. Dowling's are helpful preparations for the advanced positions which public sentiment will shortly demand be taken by legislative bodies on this subject. With the growing disposition on the part of society to regulate the many kinds of business in the public interest, it is manifestly purely a question of time when every legislature in the country will face the issue of enacting or defeating, a statute requiring that medicines sold over the counter of stores, or drug stores either, excepting physician's prescriptions only, shall distinctly state the contents of the package.

Dr. W. A. Evans, of Chicago, Ill., recently elected president of the American Public Health Association at the Cincinnati meeting last month ,addressed the Woman's Club of Atlanta, on the occasion of its twenty-fifth anniversary making a strong and effective plea for woman's larger participation in social and sanitary affairs of the community, the State, and the Nation.

Dr. R. M. Cunningham, formerly Lieut. Governor of Alabama, and health officer of Birmingham, Ala., delivered an attractive discourse to an open session on Mouth Hygiene, particularly portraying the dangers incident to the habit of indiscriminate kissing among ladies and children. Dr. Cunningham is an attractive speaker, and the medical profession of Alabama felt a distinct disappointment when he failed to be nominated for Governor a few years since, by the Democrats of his native State.

The unanimous re-election of Dr. Seale Harris, secretary of the S. M. A., was a richly merited compliment to a most zealous and painstaking officer. No honor the Association has paid, or may pay Dr. Harris, can ever repay his indefatigable and brilliantly successful labors to place the organization on a permanent basis.

The election of Dr. Duncan Eve, Nashville's famous surgeon, president for the ensuing year, was an honor alike to the organization and to one of the South's distinguished surgeons. A son of one of the South's most eminent doctors of a past generation whose "Eve's Surgical Cases" became a surgical classic the world over, as surgeon in one of our principal cities, teacher in a leading university, railway surgeon, citizen, in all phases of an active many-sided life, Duncan Eve has been a most masterful and successful man, and honors coming to him are worthily worn.

From the serious-minded discussions of ultra-scientific medicine by masters like Barker of Baltimore or Dock of St. Louis, the Association readily responded to the masterful portrayals of negro dialect of the famous Texas raconteur, Dr. J. J. Simmons, Dallas, Texas, the president of the Texas State College of Dentistry at that place. If the witty and versatile dentist did fail in securing the establishing of a section of Stomatology by the Council of the Association, he was eminently more than a success as a delightful en-

tertainer at the various dinners, and notably at the Country Club barbecue, and whenever informal discussion in the general sessions presented opportunity. On every hand pre-eminence was given him as the specific genius in the line of postprandial pleasure, but there remained a lingering doubt in the minds of the "Tar Heels" if he really was the peer of our Dr. Cy Thompson of Jacksonville, N. C.

With becoming grace and professional dignity in abundance, Dr. Southgate Leigh, Norfolk's well known surgeon, presided over the Southern States Railway Surgeons' Association. A full busy day was spent in hearing a number of admirable papers read and discussed after which the following officers were elected for 1917:

President—Dr. Joseph M. Burke, Petersburg, Va.

Vice President—Dr. I. W. Cooper, Newton, Miss.

Secretary-Treasurer — Dr. Ambrose McCoy, Jackson, Tenn.

The Association gold medal for original research work in surgery was presented to Dr. J. Shelton Horsley, Richmond, Va., for his original work on surgery of the arteries. Amid applause Dr. Horsley made modest response.

The officers of the S. M. Association elected are as follows:

President—Dr. Duncan Eve, Nashville, Tenn.

Vice President—Dr. Stewart Roberts, Atlanta, Ga.

Secretary-Treasurer—Dr. Seale Harris, Birmingham, Ala.

Dr. E. G. Ballenger, Atlanta, who started a brilliant professional career some sixteen years ago by standing an exceptionally fine examination for State license before the North Carolina State Board of Medical Examiners, presented one of the most noteworthy papers read before the Association in his demonstration by the aid of moving pictures of "Intra-Vesical Bodies." North Carolina friends noted with pleasure his eminent success attained in Georgia's capital city.

CERIUM.

Wilcox (N. Y. M. J.) treats of the so-called cerium oxalate—a variable compound of several rare earths. Boelen examined large quantities of the medicinal grade and found it to consist of derium oxide 21.35, lanthanum oxide 24.16, neodymium 11.96, praseodymium 24.20 per cent. respectively. To which of these ingredients the repute of the drug is due one can only surmise. Clinical trial has as yet been made only with the mixture. The physiologic experiments afford little definite information. Cushny found that when cerium oxalate was injected intravenously it gave rise to gastro-intestinal irritation, vomiting, diarrhea, hypenemia and congestion of the mucous membranes, congestion and inflammation of the kidneys. Brunton reported that didymium paralyzed the higher nerve centers. It lessens co-ordination, makes movements ataxic, and diminishes muscular contractility. Neither cerium nor didymium were detected in the urine after large doses had been given.

The ordinary grain dose is very small. Bartholow gave four grains every two hours until 600 grains had been administered, and suggested even larger doses. Warmly recommended by Simpson as the best remedy for the vomiting of pregnancy, its field has been extended to other forms of gastric irritation, cough, insomnia, acidity, gastrodynia, pyrosis, gastric ulcer and cancer, chronic diarrhea, cholera infantum, the morning cough of pulmonary chronic maladies and the accompanying dyspnea, and even to whooping-cough. Clark gave five grains before rising, with 24 hours' relief, and no untoward symptoms except slight cryness of the mouth.

From this basis was deduced its application in nervous maladies, hysteria, chorea, and ataxia, where Bechterew employed it with success in the crises. Wilcox limits the applications of cerium to local conditions, since we know nothing of the absorption of the components. He finds in it a close similarity with bismuth, as to therapeutic uses, but cerium does not impart a bad odor to the breath, nor is it contaminated with arsenic. He suggests ten grains every four hours, with thirty grains as a maximum. "When used in proper doses and with due discretion cerium will produce typical and satisfactory results; its therapeutic value can not be disputed."

This is very unsatisfactory. Granting that the separation of the component earths is difficult and expensive, this is not proving that it should not be done. There is no reason for administering a variable mixture of four principles if only one of them is of use. If each has an activity we should be enabled to ascertain which is the valuable one, and what are the real properties of each. For four hundred years we muddled along with ipecac, and then had a revelation when chemically pure emetine was placed in our hands.

Why does not some one of our American chemists take up such matters?

Why should we have been forced to depend upon Merck whenever we desired to make some really scientific tests of drugs, as nobody on this side of the water could or would supply us with products on whose absolute purity we could depend? That there was no real difficulty in accomplishing this, and placing in our hands chemically pure articles, may be judged by this instance. A certain salt was quoted in the market at about 45 cents a pound. Desiring a pure product, a supply house contracted with a manufacturing chemical firm for it, at the price of $3000 a ton, in ton lots—over three times the price of single pounds. Even so, the product was not pure enough to meet the need; and the customer was compelled to manufacture the salt for itself. Result—a chemiccally pure article as produced at a total cost of about 18 cents a pound! Not only so, but the product was far better than any imported grade.

Americans can produce chemically pure drugs; and if it pays Merck it will surely pay us, at present anyhow; and in spite of our crazy tariff and patent legislation it will pay after the war closes.

If only the great house of Powers and Weightman and Rosengarten, were not so wealthy that they did not need to look for new business!

FORTY-SEVENTH ANNUAL SESSION OF THE VIRGINIA MEDICAL SOCIETY.

The forty-seventh annual meeting of the Virginia State Medical Society was held in the princely hospitable city of Norfolk, October 24-26, 1916 with nearly four hundred physicians in attendance.

Dr. Joseph A. White, Richmond's eminent occulist, presided with honor alike to the society and himself. Many papers were read, and the discussions were fully up to the high standard of this excellent medical society. Of more than passing interest were the addresses of Drs. Stuart McGuire and Robt. C. Bryan recounting some of their experiences in Europe during the recent few months. Dr. Bryan was for some months a member of the surgical staff of one of the larger base hospitals in France, not far from the firing line, and during his stay there had a very large experience in the various types of wounds infiicted on the troops of the Allies especially.

Dr. McGuire spent his summer vacation in England where his reputation as one of America's great surgeons had preceded him, and he was the recipient of much attention from leading Brittish surgeons, and operated in several of the principal hospitals of England besides seeing many of the wounded soldiers brought home from the front. A portion of the time he was the guest of Lord Astor whose wife it will be remembered was a Miss Langhorne of Richmond, Va.

Dr. J. Allison Hodges' paper defending the South from aspersions oft-times repeated, of being a peculiarly unhealthy and unsanitary section of America was a valuable contribution to a perennially interesting theme and was, like most of the contributions of this capable doctor, well received and will when published be read by the Southern profession especially, with great interest.

The financial reports of the officers of the society showed a need of careful attention, and members were urged to remember to pay their annual dues to the state society by the President in his excellent address which was devoted to a consideration of the conditions of the organization, and especially to its finances.

Years ago, so long in fact the younger members know nothing of it save as a matter of history, the dues to the North Carolina State Medical Society were collected in similar haphazard fashion, but in 1903, when the "reorganization" wave swept over the medical societies of the nation, the Old North State, ever responsive to appreciation of betterments in any line of human endeavor, promptly adopted with a few minor modifications, the A. M. A. plan of making the county societies the gateway of entrance to the state organization and providing for the collection of the dues in the local societies with their remission to the state society treasurer some weeks in advance of the annual sessions, was adopted and since then the state society has experienced no financial difficulties whatever. Continuing the annual issuing of an attractive volume detailing the session papers and discussions, and as well as a sort of annual review of public health and the various other activities of the medical profession in North Carolina, the state medical society enjoys a freedom from financial care quite different from conditions twenty years ago. Virginia was slower to move in the "reorganization" of its medical profession, adopting the different peices of the plan by peicemeal as it were, but from recent indications, it appears, the Old Dominion is at last about to have in force all of the basic principles and plans of the "reorganization of 1903," and when each is fully in operation, the only regret of the Virginians will be their tardiness in so

legislating in their state medical society.

The social diversions of the recent Norfolk meeting were as felicitous as the famous hospitality of Virginians could devise, culminating in that most delightful manifestation of genuine Virginia-Carolina coastal courtesy to strangers within the gates, an oyster-roast with the proper supplementary attachments. To those attending the Norfolk session of the Virginia Society the recollection is a delight. To those not able to be there, the knowledge is a constant regret.

Dr. Geo. A. Stover, South Boston, Va., is the newly elected President for 1917.

J. H. W.

WHY CAN'T DOCTORS BE GENTLEMEN?

We are all, to some extent, enthusiasts; we all would be progressives. Our first light, first experience on many subjects are our brightest.

When we unearth or discover something we consider new and worthy, unlike other occupations, trades and professions who keep it under a bushel and apply for a governmental patent, we love to tell it to the profession to which we belong that the world may profit by it.

On such occasions as this, in medical societies, County, State and National, I've heard doctors say in discussions, "'Tis not so. It can't be did."

Chances are, one to many, the critic didn't know that the man who wrote the paper knew, to say the least, more about his subject, than did the critic? That the critic was a big I who wished to be seen and heard and was playing to the gallery.

Why can't we as doctors apply the Golden Rule? Why can't we be gentlemanly critics? Why can't we be gentlemen?

ON THE RELIABILITY OF SEROLOGICAL EXAMINATIONS.

What reliance can we place in the Wassermann and Compliment Fixation tests? It is needless to say, that positive reactions denote something very vital, while negative results do not always dispel the possibility of infection. Dr. Blaschko of Berlin has proven the above contention conclusively. We must also not forget, that during the incubation of lues serological tests almost always prove negative; while in the post-gonococci stages a positive complement fixation is conspicuously absent.

Another phase of this question is the so called **doubtful serological reaction** that we commonly designate as plus one. It is impossible to tell from such a result, whether a given case is faintly positive or some other extraneous influence has modified our ultimate findings.

We must also consider that certain therapeutic agents administered prior to a seriological test will materially inhibit reactions, so that it becomes encumbent upon us to enquire minutely into the past history of the patient.

Such agents as potassium iodide, cacodylate of soda, in any form or by any mode, and the administration of salvarsan will so modify a serological test as to make it disputable. A prolonged interval should elapse between the exhibition of the above substances and a Wassermann test.

We must also consider the various phases of parasyphilis and its manifestations, because in these a Wassermann test is very rarely positive. And yet with all, a serological examination should be conducted whenever there is a doubt in our mind, or indications point to a possible primary infection in an obscure case.

N. E. A.

GONORRHEAL BACTERINS AND THEIR LIMITATIONS.

Vaccins possess their sphere of usefulness as well as their sphere of limitation; it would seem that either the fault resides in the innocuousness of the vaccine per se, or in the lack of proper knowledge as to how to use them on our part. We do not wish to dwell at this place on vaccins in general, but we shall limit our discussion to their utility in gonorrheal infections. We do not always notice improvement in gonorrheal cases and their various complications and sequelae. Definitely it is known, that we need expect but little in acute cases, while in chronic cases its results are not always satisfactory. And yet we are happily surprised to observe most excellent results in cases where we least expected them.

Seemingly we do not comprehend the indications of vaccine therapy, or we did not perhaps study the entirety of the process as it presents itself to us in its clinical evidences.

Combined gonorrheal vaccins are most particularly useful in infections of the seminal vesicles, the prostrate and the constitutional phases of gonococcic infection, such as arthritis, endocarditis, etc. Quite frequently, however, we are disappointed, if we employ bacterins in granular posterior urethritis of gonor-

rheal origin or in similar affections of the glands and crypts of the urethra.

Selection, is therefore the key note to success in the employment of bacterial vaccines in cases of gonorrheal origin. Attention must also be directed to the fact that a pure gororrheal infection is rarely if ever present; hence mixed vaccine should invariably be used in all such cases. N. E. A.

THE INEFFICIENCY OF POST-GRADUATE STUDY.

The European war has its blessings as well as its sorrows, particularly as far as the United States is concerned. Never have we had a greater opportunity to expand, in medicine as well as in commercial lines. If we do not wake up to our advantages, it is not because the opportunity is not there—it is only that we fail to grasp it.

There is a great deal of medicine and surgery practiced in these United States —a great deal of which, in free hospitals and dispensaries in our larger cities, could be used for teaching purposes. Much of this material is wasted, utterly wasted for the advancement of knowledge, except to a select few; not because we are lacking in good teaching but mainly because a great deal of this material is seen outside the regular post-graduate schools.

We do not wish for a moment to unduly criticize the institutions which aim to help the practicing physician who seeks for greater knowledge. However, these institutions themselves will agree with us that there are many untried men outside their faculties who could do a great deal to advance knowledge by teaching. The best evidence that this is so is the extension teaching the undergraduate institutions are giving. In New York City, the College of Physicians and Surgeons has arranged for clinical teachings in many outside institutions such as the Presbyterian, St. Lukes, Roosevelt, Mt. Sinai, New York and Bellevue Hospitals and the New York Eye and Ear Infirmary.

Now that the post-graduate schools abroad are closed, there is a greater opportunity than ever for the expansion of post-graduate teaching. The medical men of the country are clamoring for instruction. We are sorry to say that our post-graduate institutions have not responded to the fact that the country medical man knows almost as much as his city brother and that when he desires to "brush up," he needs better instruction and more broadening instruction than he did twenty years ago. The various medical journals have allowed him to keep well up with the times. What he desires in post-graduate teaching is either the opportunity of seeing and studying a large amount of clinical material in a short time or the opportunity of studying some specialized branch of medicine or the opportunity to get his hand on the knife once in a while under a competent instructor. We regret to say that he is frequently disappointed, either because the clinical material is not there or the "professors" know little more than he does, or because he is not trusted to handle a knife.

In the exhaustive study of the Carnegie Foundation, severe criticism of post-graduate teaching at home and abroad, filled many pages. No remedy for the existing evil was given. The investigation proved that we were in an excellent position in this country to give proper clinical teaching.

We venture to suggest a remedy. In every large center, like New York, a central bureau for clinical post-graduate teaching should be formed. A board of directors, composed of prominent men should take charge and control the bureau. A roster of names of reputable physicians who desire to teach in any hospital or any clinic, should be kept. Every specialized branch of every specialty could be represented. If an out of town physician desired instruction in certain kinds of work, he could write to the bureau, whose secretary could arrange all his work in one institution in which there are good teachers in certain lines, bad teachers in others, he would have it mapped out for him in different institutions under qualified competent instructors.

We are advised that such a plan was proposed to the Carnegie Foundation. They were not interested. It was sufficient to them to find out the fault—it was not up to them to remedy it. However, one large city is trying it out—we hope successfully.

H. K.

ADIOKOKINESIS.

When one reviews the newer phases of medicine, indicating the vast strides that are being made, he is struck with the ingeniousness displayed in the manufacture of new words which not only hold the laity spell-bound but make the well-seasoned practitioner gasp. To express ourselves and to express ourselves well in the simplest Anglo-Saxon terms is the ambition of many of us. Yet, there are times, particularly when one is writing

for scientific journals on very technical subjects, that one feels it incumbent upon him to express himself with scientific dignity. The word "boil" for example, would be perfectly fit, but furuncle appeals to the more scientifically inclined.

Is there not some way of terminating the endless variety of unpronouncable terms—terms which can only stick in the minds of those that manufacture them? By habit we learn such words as psndocyesis, adiposis dolorsum, poliomyelitis, etc. But unless one is born in Hawaii, can he ever learn to say adiadokokimesis and say it straight?

Alfred Braun (Annals of Atology, Laryngology and Rhinology, March, 1916) in a classic paper on "The Diagnosis of Cerebellar Abscess" describes some interesting symptoms, which, apparently were not properly observed or recorded. Of course such important discoveries deserve euphonious expression and therefore we learn that there is such a thing as hypermetria, i. e., unmeasured or immoderate movements; and cerebellar asynergy, i. e., inability to synchronize the movements of various joints; and lastly but not leastly, adiadokokinesis, i. e., lack of ability to execute rapidly successive voluntary movements.

There it is at last! **Adiadokokinesis!** Woe to the poor neophyte who is just beginning to delve into the classics of medicine. H. K.

EDITORIAL NEWS ITEMS

Dr. G T. Watkins of Goldsboro, N. C., has located in Durham, N. C., where he will practice medicine.

Dr. Alice Johnson, Asheville, N. C. has gone to New York City for post-graduate study.

Dr. R. M. Sterrett, many years associated with the advertising of Antiphlogistine, sends greeting to his many friends, announcing his resignation as Advertising Manager of the Denver Chemical Mfg. Co., New York City, effective, January 1st.

Two well known physicians in an Eastern Virginia city were recently convicted and fined in the local courts for failing to comply with the vital statistics statute of Virginia in reporting deaths and births to the State Board of Health.

Dr. Fred L. Potts, Spartanburg, S. C. has removed to Vanceboro, N. C., where he will shortly open a private surgical hospital. Dr. Potts was formerly a practitioner in North Carolina, and his return to the state will be appreciated by former patrons, and his genial manners will find him ready welcome within the guild.

Dr. Aldert Smedes Root of Raleigh, N. C., will limit his practice after December 1, 1916, to disease and disorders of infancy and childhood. Dr. Root is one of the most brilliant and prominent men in the medical profession of this Statae, and we predict for him a very bright future.

Dr. Henry Q. Alexander, Matthews, Mecklenburg County, N. C., has for the ninth time been elected president of the North Carolina State Farmers Union. Dr. J. M. Templeton, Cary, Wake County, N. C., was also re-elected vice-president of the Union. Both are strong men, and splendid representatives of the best type of the rural medical man of the South.

Dr. James F. Gardner, a prominent, retired physician of Capon Bridge, W. Va., was instantly killed on November11, 1916, when his automobile overturned near Kernstown, on Valley Turnpike. Dr. Gardner was a very high type of a medical professional gentleman, and his life was full of great accomplishments. He graduated from the University and Bellevue Hospital College, in New York City, in 1879.

The Maternity Hospital of Richmond, Va., formerly known as The Maternity Home, at 16 East Leigh Street—has moved to 400-402 East Clay Sereet—where it has added to its already well equipped Hospital—a special department for the treatment of alcoholics and drug addicts. Persons desiring to communicate with this Hospital will address all communications hereafter to Mrs Bessie Vandergrift Bragg, Superintendent, instead of Miss Bessie Vandergrift.

Dr. W. S. Whitmore, of Staunton, Va., and formerly city physician of that city was accidentally shot and possibly seriously injured by City Physician Fred S. Hamlin, while the men were on a hunting expedition. He was taken to the Hospital where an operation was performed.

Dr. Whitmore is a very prominent physician not only in his State but also in the adjoining states. It is hoped that he will soon recover.

South Carolina Medical College—At a recent meeting of the Board of Trustees of the South Carolina Medical College it was unanimously agreed to admit women to the classes. The matter of a chair devoted to teaching public health was also discussed and its advisability agreed upon, and when practicable it is expected to add such chair to the already excellent equipment of this famous medical school.

Dr. A. S. Townsend of Bennettsville, S. C., died at his home in Bennettsville on November 13, 1916. Dr. Townsend was one of the most prominent physicians in that section. He had a large practice, and was one of the most beloved physicians that has ever practiced—not only at Bennettsville—but in that entire section of the State. Dr. Townsend graduated at the Medical College of the State of South Carolina in 1887, and he was a very active and useful member of the State Society since his graduation.

Dr. Hugh Green of Harrisonburg, Va., died at the advanced age of seventy-five in Fauquier County, November 4, 1916. Dr. Green was an early graduate of the University of Virginia Medical School, and close kinsman to the Confederate General Turner Ashby. He is survived by a wife and seven children. A consistent Presbyterian, a capable physician, a kind friend, a useful citizen, the passing of Dr. Green marks the close of an honored career unsullied by stain or tainted by the contaminations of life.

Greenville, S. C., continues experiencing the petty annoyances of a prolonged dispute over the control and management of the city hospital. At a recent session of the aldermanic board a new board of directors for the hospital were elected composed of four of the former directors and a new man. A committee was designated to arrange new rules for the governing of the institution, and it is hoped the differences in the staff and management may be composed to the satisfaction of both profession and public.

The North Carolina Medical Society Meeting—The next meeting of the North Carolina Medical Society will take place in Asheville, N. C., on April 17, 18 and 19, 1917. It is expected that this meeting will be the best in the history of this Association. Asheville is a delightful place to visit, either in Winter or Summer, and the well known "Battery Park Hotel" will be headquarters for the meeting, and will be the stopping place. I do not suppose there is a hotel anywhere in this country, and certainly not anywhere in any other country, that is any better or more comfortable than the Battery Park Hotel in Asheville, N. C.

The Medical faculty of Petersburg, Va., held its annual meeting on November 16, 1916, transacted business and elected the following officers:

President, Dr. J. D. Osborne; first vice-president, Dr. Claiborne T. Jones; second vice-president, Dr. J. E. Smith; secretary, Dr. L. S. Early; corresponding secretary, Dr. A. F. Bagby.

Court Medical—Drs. W E. Harwood, chairman, F. W. Harris, J. F. Wright, Charles J. Sawyer and E. L. McGill.

Paper Committee—Drs. H. G. Leigh, chairman, J. B. Jones and W. P. Hoy.

Supper Committee—Drs. H. A. Burke, chairman, D. D. Wilcox and J. E. Nixon.

Following the business meeting—the faculty sat down to a banquet.

At Callaway, Va., on October 28, 1916 Dr. Rufus M. Lemon, a well known physician of that section of the Old Dominion passed at the ripened age of sixty. Dr. Lemon was fine type of the rural country doctor of the South, a graduate of the Kentucky School of Medicine in Louisville, he added to his stock of technical knowledge by study in the New York City hospitals and while more than once solicited to remove to a larger field, he was quite content to spend the busy years of life in ministering to a country clientele. A life long member of the Baptist Church, and a good citizen in every sense of the term his going is marked, and his memory cherished by many who loved and appreciated him in his earthly career.

At a recent meeting of the Directors of the Virginia Anti-Tuberculosis Association the matter of establishing a state hospital for the special care of the crippled children of Virginia was seriously discussed with the result that a committee of Drs. Ennion G. Williams, and Wm. Graham, Richmond, Va., Chas. R. Grandy, Norfolk, Va., and Miss Agnes D. Randolph, Secretary of the Virginia Anti-Tuberculosis Association, were appointed to take the matter under consideration and report a plan of operation later. It is expected to co-operate with the other associations and individuals in the state interested in securing such an institution, and friends of the humane movement believe such an institution will be erected shortly, once the people are aroused to its necessity.

Dr. Lewis McLane Tiffany, Baltimore, Md., di ed at Mount Custis, his country place near Baltimore of Angina Pectoris, October, 23, 1916 at the age of 72.

Retiring some twelve years ago on account of failing health, younger members of the profession in the states near by to Baltimore are not as familiar as older men with the strong stalwart figure, the kindly sympathetic mien, the rich deep well modulated voice of this man who in a former generation of medical men was considered Baltimore's first surgeon for a possible score of years as well as one of the South's best known teachers of the surgical art.

During an active career many professional honors came to Dr. Tiffany, among them honorary membership in the Medical Society of the State of North Carolina and also a similar distinction in the Old Dominion, and it was said of him that he received no honors appreciated more highly than these. He was a frequent visitor to both North Carolina and Virginia State Medical Societies a score of years ago, and his discussions were always listened to as the wise words of a master in surgery.

He is survived by his second wife, nee Miss Evelyn Bailey, the only child of an antebellum congressman from the First District of Virginia, and one daughter by his first wife who resides in Boston, Mrs. Gordon Abbott.

Dr. J. F. Robertson of Wilmington, N. C., was married to Miss Juliette Albright, also of Wilmington, on November 15th. Dr. S. P. Oast of Portsmouth, Va., and Dr. G. H. Lang of Savannah, Ga., attended this very interesting and prominent wedding.

Dr. Robertson is a native of Virginia—but for the last two years has lived in Wilmington, where he has met with unusual success in his profession. He has taken an active part in his local medical society, the State Society and the Tri-State Society, and he has intimated to his friends that he proposes to take a very active part in the various national societies. Dr. Robertson is a graduate of the University of Virginia, having obtained the degree of A. B. and also a graduate of the University of Pennsylvania, where he obtained the degree of M. D. For two years he served in the Episcopal Hospital in Philadelphia and was also connected for a short time with the Kensington Hospital for Women in Philadelphia.

Dr. Robertson is the son of J. F. Robertson of Charlotte, N. C., who is one of the most prominent bankers in that city. His bride is the daughter of Mr. and Mrs. P. R. Albright, and is one of the most accomplished and beautiful young ladies in eastern North Carolina.

American Medical Editors' Association.—The annual meeting of this Association was held on the 25th and 26th of October, at the McAlpin Hotel, New York.

A most interesting program was presented, and the Symposium relating to the "Doctor and the Law," with especial reference to Anti-Narcotic Legislation, presented on Wednesday afternoon, created wide spread interest and a large attendance from the profession, the judiciary, the Internal Revenue Department and drug manufacturers.

The officers selected for 1916-1917 were as follows:

President—George M. Piersol, M. D., Philadelphia, Pa. (Editor American Journal Medical Sciences).

1st Vice President—George W. Kosmak, M. D., New York (Editor American Journal of Obstetrics).

2nd Vice President—Robert M. Green, M. D., Boston, Mass. (Editor Boston Medical and Surgical Journal).

Secretary and Treasurer—J. MacDonald, Jr., M. D., New York (Managing Editor American Journal of Surgery).

Executive Committee.

C. F. Taylor, M. D., Philadelphia, Pa. (Editor Medical World).

A. S. Burdick, M. D., Chicago, Ills. (Editor American Journal Clinical Medicine).

D. S. Fairchild, M. D., Clinton, Iowa (Journal Iowa State Medical Society).

Dr. H. Edwin Lewis, New York (Editor American Medicine; Chairman of the Publication Committee and Editor of The Journal of the American Medical Editors' Association).

The next annual meeting will be held in New York, with headquarters at the McAlpin Hotel on June 4th and 5th, 1917.

Eighth District Medical Society of North Carolina.—This society met in Greensboro, N. C., on November 28th. The managers and directors of this association arranged and carried out a very appropriate and intelligent program. Dr. Styles of Wilmington, N. C., a medical employee of the Government of the United States who is so well known as hookworm specialist, read a very learned and valuable paper. Dr. Styles is Professor of Zoology, Biological Laboratory of the United States Public Health that is located in Washington, D. C. Dr. Styles

is so well known all over the medical world, certainly in the hookworm district of the medical world, it is useless for me to comment on his ability and how much value a description is of his ideas on the subject of hook-worm and of all of the diseases that this disease might cause or aggravate or eventually cause.

Among the speakers from Greensboro were Drs. Fred M. Hanes, and T. W. Davis. They delivered very fine lectures or addresses. The address of welcome was delivered by T. J. Murphy of that city and the response was delivered by Dr. M. A. Royal of Elkin. On this particular occasion Dr. L. H. Hill of Germantown made an appropriate address which was well and enthusiastically received. The officers of the Society are Dr. C. W. Banner of Greensboro, president, and Dr. Parron Jarboe of same city is secretary. They certainly tried very energetically to get up a very fine program which they did successfully.

On Tuesday from 8 a. m. to 10.30 a. m. a clinic was held at St. Leo's Hospital by Dr. J. W. Long and Dr. J. A. Williams from 11 a. m. to 12.30 p. m. a moving picture clinic in five films was exhibited by Dr. Albee of New York City in his latest method of bone grafting, and other leading surgeons in their several specialties.

At 1 o'Clock.

A rather unique interesting and informal luncheon was served in the annex of the West Market Methodist Episcopal Church. It was very beautifully served and greatly appreciated.

In the Afternoon at 2 p. m.

The society was called to order by the president. During the afternoon session Dr. Mann of High Point read a very interesting paper on "Gastro Intestinal Myiasis." It was well received and intelligently discussed. Among the other important papers on the program that were read were as follows:

Quinine and Urea. Method of Treatment of Hermorrhoids—Dr. Parron Jarboe, Greensboro.

Headaches—Dr. M. A. Royal, Elkin.

Some Reminiscences of a Country Doctor—Dr. L. H. Hill, Germanton.

Does Pyorrhoea Cause Pellagra?—Dr. W. P. Horton, Wilkesboro.

Subject Unannounced—Dr. T. W. Davis, Winston-Salem.

Clinical Report of an Interesting Kidney Cure With X-Ray Pictures of Same—Dr. H. H. Dodson and Dr. John A. Williams.

The Wassermann Reaction in its Relation to Internal Medicine—Dr. F. M. Hanes, Winston-Salem.

Some Unusual Migrations of Mosquito Pupae—Dr. J. T. J. Battle.

Public Session.

In the evening at 7.30 o'clock at the court house, Dr. J. W. Long of Greensboro, delivered the "Lantern Demonstrations of Some Cancerous Conditions," and Dr. C. W. Styles of the United States Public Health, Washington, D. C., read a very interesting paper that was much appreciated.

The Seventh District Medical Society met in Monroe, N. C., on December 4 and 5. It was a very successful meeting in every respect—it was possibly the most successful of any in the history of this District Medical Society.

Dr. E. C. Register acted as Chairman of the Association, on account of the absence of Dr. Davidson who is in New York City taking a post-graduate course in skin diseases.

The program reads as follows:

Monday Evening, December 4—8 p. m.

Invocation—Rev. H. E. Gurney, D. D. Monroe.

Address of Welcome on Behalf of Monroe and Union County—Rev. Lee M. White, oMnroe.

Response to Address of Welcome—Dr. W. H. McKay, Charlotte.

Urinary Calculi, Lantern—Slide Illustrations—Drs. A. J. Crowell and J. W. Squires, Charlotte.

Restoration of the Female Perineum—Dr. L. N. Glenn, Gastonia.

Infections of Maxillary Antrum—Dr. J. P. Matheson, Charlotte.

Acidosis and Carbon iDoxide Tension of Alverolar Air—Dr. Robt. H. Lafferty, Charlotte.

Eclampsia—Dr. J. C. Twitty, Rutherfordton.

Tuesday December 5—9 a. m.

Case Report Illustrating the Necessity of Re-examination of Hook Worm Patients—Dr. J. Rush Shull, Cliffside.

Our Consumption Problem and How Shall it be Solved—Dr. R. Armfield, Marshville.

Blood Transfusion With Special Reference to the Citrate Method—Dr. Wm. M. Scruggs, Rutherfordton.

Leukaemia—Dr. Otho B. Ross, Charlotte.

Some Suggestions in Administering Anaesthetics—Dr. J. C. Montgomery, Charlotte.

The Relation of the Medical Profession to the People—Dr. H. D. Stewart, Monroe.

Manifestations of Alimentary Toxaemia—Dr. R. F. Leinbach, Charlotte.

Fracture of Femur—Dr. S. A. Wilkins, Dallas, N. C.

Histerectomy—Dr. Oren Moore, Charlotte.

Diptheria—Dr. C. D. Thompson, Lincolnton.

A Plea for Modern Orthopaedic Surgery—Dr. R. A. Moore, Charlotte.

Pyelitis in Children—Dr. Yates W. Faison, Charlotte.

Puereral Sepsis—Dr. J. C. McCombs, Gastonia.

Morphinism; a Variety of Comments —Dr. S. M. Crowell, Charlotte.

The President of the meeting, Dr. Biggs, of Rutherfordton, presided over the meeting beautifully and with dignity.

Dr. Thompson of Charlotte while a young man is a very bright and cultured professional gentleman and contributed a great deal to the success of the meeting.

The Committee of Arrangements were: Dr. J. E. Ashcraft, Monroe; Dr. R. H. Garren, Monroe.

The program was carried out in almost perfect regularity. I hope that the members of the society will pardon the writer for calling attention to the very active part that the special surgeons and physicians took in the interesting features of the Association.

It also gives me a great deal of pleasure to notice how much interest the physicians and surgeons of Gastonia, Rutherfordton and Charlotte—in fact all of the other members of the association in the different towns and in the different counties contributed to the success of the meeting. All of them exhibited with familiarity with all the medical subjects discussed.

The following officers were elected at the close of the meeting:

President—Dr. H. D. Steward, of Monroe.

Vice President—Dr. W. F. Mitchell, of Shelby.

Secretary—Dr. S. R. Thompson of Charlotte.

Seventy-five physicians registered at the meeting. The next place of meeting is to be Shelby, N. C., and the date is fixed for the second Tuesday in October, 1917.

BOOK NOTICES.

Blood Pressure, by Francis Ashley Faught, M. D., formerly Director of the Laboratory of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Second Edition, thoroughly revised. Octavo of 478 pages, illustrated. Philadelphia and London. W. B. Saunders Co., 1916. Price $3.25 net.

In the preparation of this boook, the second edition, Dr. Faught has adhered to the plan originally outlined, by avoiding wherever possible any unnecessary discussion, and the introduction of theoretic and conclusive data.

More careful methods of clinical study have enabled the author to introduce a larger amount of clinical material, including many new charts, illustrative of various types of blood pressure changes, from which it is hoped that the reader may be able to acquire a more practical review of the subject.

This is a handsome volume of 478 pages. It is very accurately and correctly indexed, as are all of the volumes of Saunders and Co. The illustrations in it are quite appropriate, and now-a-days it is useless for an author to send a book to publishers, without appropriate illustrations, and the illustrations in this volume are very fine indeed.

The work is printed in rather bold type, on very fine paper, and as Dr. Faught is an authority on the subject of Blood Pressure we do not hesitate to reccommend this book to all who are especially interested in this subject.

Personal Health, by William Brady, M. D., Elmira, N. Y., 12 mo. of 407 pages, Philadelphia and London, W. B. Saunders Co., 1916. Cloth, $1.50 net.

Dr. Brady is so well known to the medical profession, that it is scarcely necessary to comment on his valuable contributions to the world of medical science. His articles for the past fifteen years, written for the medical profession are very well known, and have proven of so much benefit, that it would be useless to refer to this book, only from a standpoint of praise. It deals with a subject of such practical information, that it may possibly be considered under the head of personal health, presented in a form that can readily be understood by the lay reader and the general public more especially concerned with sanitation and public health.

We note his timely expression that personal health is a subject of far greater importance than public health; farther, he states that personal health is a sadly neglected subject in the popular literature of today.

It has given me a great deal of pleasure to look over this volume. It is small—only having 407 pages, including the index. It is an attractive volume and well worth the price that Saunders and Company charge for it. It gives me pleasure to recommend it to the readers of this

magazine. It has been quite a while since I examined a book with more approval than I have this one.

The Practical Medicine Series. Practical Medicine, under the general editorial charge of Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vol. 6. General Medicine, edited by Frank Billings, M. S., M. D., Head of the Medical Department, and Dean of the Faculty of Rush Medical College, Chicago. Assisted by Burrell O. Raulston, A. B., M. D., Resident Pathologist, Presbyterian Hospital. Series 1916. Price $1.50. The Year Book Publishers, Chicago.

It always gives me a great deal of pleasure to review a volume of this series of splendid books. This one, especially is of unusual interest. It has several illustrations that add a great deal to the interest and value of the little volume, and as I often say in book reviews, without illustrations, medical books in these days, are not so popular or so valuable. This work devotes many pages to the subject of typhoid fever, and to infectious diseases, and also to the preventative and curative treatment of typhoid vaccination. I take great pleasure in recommending the book.

Vaccine Therapy in General Practice by G. H. Sherman, M. D. Also quotations from Other Authors. Third Edition, published by G. H. Sherman, M. D., Detroit, Mich, 1916.

Dr. Sherman is sending out a very handsomely bound volume of 523 pages, dealing with this new and very important subject. I certainly advise my friends and patrons of this Journal to order a copy of this very useful volume, which deals with almost a new subject. Serum Therapy is the coming treatment in most diseases, and especially fr infectious diseases, and up-to-date physicians cannot afford to be without this volume. I thoroughly recommend it.

The Operating Room, by Amy Armour Smith, R. N. formerly Supt. of New Rochelle Hospital, New York; Supt. of Nurses at the S. R. Smith Infirmary, Staten Island, and at the Womans hospital of the State of New York. 12 mo. of 295 pages with 57 illustrations. Philadelphia and London. W. B. Saunders Co., 1916. Cloth, $1.50 net.

It always gives me pleasure to read anything that this lady writes, and this work, entitled "The Operating Room" contains a great deal of good advice, and I hope the reviewer of this work will pardon me for copying the first paragraph of her preface, which follows:

"This little book has been slowly and anxiously pieced together, not by one continuous task, but by culling an idea here, a formula there, a test somewhere else, from the conversations of numerous good friends in the medical and nursing professions, and from happy memories of days in training under the kindly, thorough instruction of Miss A. M. Rykert and Miss J. McCallum (now Mrs. Schenck of Detroit) for the opportunity to be under whom, those who were so fortunate, have been increasingly proud and grateful as time goes by.

Yet withal, this book will seem rather crude in comparison with the finished work of experienced authors. Generously excuse its faults, on the ground that it is only a pioneer, from a nurse to nurses, and not from a physician to nurses. These data have been garnered from journals on nursing, from physicians libraries, and from the practical experience of friends. If its humble appearance proves to be an inspiration to others more skilled, to take up the labor and go farther, it will have accomplished much. If again, any nurse chances to learn that she can constantly acquire information, that may be at any time, no matter how remote, tremendously useful to her, it will not have been written in vain.

While this book is small—only 195 pages, it is very necessary for every nurse who contemplates doing operating room work (as all of them are occasionally expected to do) to have this volume in her library. It is a neat little volume, nicely and appropriately illustrated, and I do not hesitate to recommend it to any nurse, more especially those called upon to do much work in the operating room.

Lifes Day, Guide Posts and Danger Signals in Health, by William Seaman Bainbridge, A. M., M. D. Member Medical staff of various Metropolitan Hospitals, including New York City Childrens Hospitals and Schools, Lecturer, Chautauqua Institution etc.

This is a Manual of health for the busy man and woman, giving in interesting form necessary knowledge for the maintenance of good physical and mental condition from birth until death. It pays especial attention to the critical periods —infancy, childhood, adolesence, middle life and old age.

This book is the finished and completed product of a series of very popular

lectures delivered by Dr. Bainbridge at Chautauqua. It is thus unique, being a popular book by a recognized medical authority. It is also unusual, because it covers the whole ground, not confining itself to one period of life, or to one phase of hygiene, such as nutrition. Moreover it does not advocate a fad of a "movement." It is a sane comprehensive guide book to health. It is published by Frederick A. Stokes Co., New York. Cloth 12 mo., $1.35 net.

Dr. Bainbridge is possibly one of the leading surgeons of the world; he is one of the most accomplished professional gentlemen I have ever met. His name is so well known all over the medical world, that it is useless for me to add anything, or try to say anything that would make him more prominent than he is, because there is not a woman, man or child in New York City who is not thoroughly familiar with his skill and his great ability.

While Dr. Bainbridge has written a great many volumes on medical, surgical and semi-medical subjects, the medical profession will certainly be glad to have him continue his activity which means much to the medical world.

This volume, while small, containing only 308 pages, including the index, is one of the most interesting and valuable books I have had the pleasure of reviewing.

Miscellaneous.

Mrs. Jessie G. Harper, Executrix of the Estate of the late Dr. Charles Harper of Wilmington, N. C., is offering for rent, as you will notice from another column of this Journal—the Hospital or Sanatorium, of the late Dr. Charles Harper, at Wilmington, N. C. It is a magnificent place and is offered for rent at a very attractive price. I certainly would advise anyone interested in this proposition to get in communication with Mrs. Jessie G. Harper of Wilmington, N. C., and negotiate a trade or deal with her in order that she may dispose of this very valuable and attractive rental property.

The term aerial disinfection is employed to mean the use of the air as a vehicle for diffusing, to all exposed surfaces of the room and its contents, a gaseous germicide. The disinfection of the air itself, more or less loaded with germ laden dust particles as it usually is, may be regarded as incidental, just as would be the case with water used in making a disinfectant solution. Air and water are the natural agencies for cleansing an infected apartment. Why should we not render the former germicidal as well as the latter? Some of the most prominent opponents of fumigation advocate a renovation of infected apartments so thorough as to include repapering, repainting, etc. They would subject the scrub woman, paperhanger and painter to the danger they thus clearly recognize, without the protection which a prior and efficient fumigation would afford.

An eminent scientist has placed before a symposium of health officers seven questions hereinbelow mentioned:

1. After what diseases do you think it desirable to fumigate?
2. Do you regard formaldehyde as the most satisfactory aerial disinfectant? If not, what in your opinion is better?
3. Do you think the conclusions reached by Mr. Adams justified?

Reads as follows:

"I am assuming in what follows, only two points: That you are an adult, and a non-consumptive at present. On the hypothesis:

1. You have had tuberculosis.
2. You have cured yourself of it.
3. In the process of curing yourself you have so fortified your body against it that you are safe against "catching" the disease from any other person.
4. If you now become a consumptive it will be through a relapse and by your own fault.
4. Even if this new theory of tuberculosis were generally accepted, would it not point to the necessity of fumigation after pulmonary phthisis to protect children?
5. Have you, in your experience, thoroughly satisfied yourself as to whether or not communicable diseases are commonly conveyed by objects handled by the patient? In other words, what role do fomites play in carrying infection?
6. How is it that some sanitarians who advise burning books handled by a person having a contagious disease, regard the fomite theory, as applied to things generally, so lightly that they do not fumigate the room and its contents?
7. Is not the viability of pathogenic bacteria so influenced by deficiency of light and fresh air, and so affected by atmospheric conditions in general, as to make it unwise to rely upon disease germs shortly succumbing to conditions practically unattainable without fumigation?

A careful study of the foregoing questionaire will doubtless present many

phases of the varied theories based on the experiences of our leading sanitarians, and, as good citizens, the laity itself should appreciate the difficulties encountered in arriving at a majority vote. Yet a large majority (about 95 per cent.) of the state health officers, joining in the symposium, favor a continuance of formaldehyde gas disinfection on the practical basis that one cause of spreading communicable diseases (room infection) should not be neglected because another has been found (carriers), whatever the relative importance of the two agencies may be. Destroy bacteria by volatilizing formaldehyde, without ignition, in warm moist air.

The Efficient Spinal Supporter.

It is the opinion of a large majority of the medical profession that in cases of spinal curvature, no matter how caused or of what nature, a spinal supporter or brace is indicated.

The efficient spinal suporter should be so constructed as to elongate the spine, for all admit that the only way to straighten a crooked spine is to extend it, to separate the individual vertebras and allow as little pressure as possible on the intervertebral cartilages and the roots of the spinal nerves. It should exert a gentle but constant life between the hips, the torso and the axillary folds, thus removing the weight of the upper portion of the body from the spine, transferring it to the hips.

The efficient supporter should be light in weight and comfortable to wear, so that the patient's general health will not be affected by weight or undue pressure anywhere. It should be adjustable that advantage may be taken of improvement in the patient's condition and easily removable to permit of examination and to facilitate bathing, massage and medication.

While giving proper longitudinal support, the efficient supporter should be flexible to allow of movement and exercise sufficient to prevent wasting or atrophy of the muscles.

Plaster of paris casts, sole-leather jackets and steel braces will, in many cases, bring about satisfactory results, but the shortcomings of this rigid form of support are apparent to the modern practitioner. A heavy and rigid aparatus, through the discomfort it brings the patient, meets with opposition from all parties concerned and is often discarded before being worn a sufficient length of time to demonstrate whatever merit it may possess.

Many cases of spinal irritation and general neuresthenia, without actual spinal curve, need a spinal supporter. Most of these patients will welcome a light and comfortable apparatus but find great difficulty in wearing the cast, jacket or brace frequently ordered by Orthopaedists.

In cases of anterior polio-myelitis, a muscle grafting is or is not done, support of the spine is indicated and should be advised at a very early period.

In cases of spinal tuberculosis, it is especially necessary to remove the weight of the upper portion of the body from the vertebras, and a comfortable, efficient appliance is indicated.

On another page in this issue appears the advertisement of the Sheldon Appliance, which we believe is the most practical and efficient spinal supporter on the market. This Appliance is made by the Philo Burt Manufacturing Company at Jamestown, N. Y.

Pepsin is undoubtedly one of the most valuable digestive agents of our Materia Medica, provided a good article is used. "Robinson's Lime Juice and Pepsin" (see page XIV this number) we can recommend as possessing merit of high order.

The fact that the manufacturers of this palatable preparation use the purest and best Pepsin, and that every lot made by them is carefully tested before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.

Obstipation Following Operation.

There are many theoretical reasons why INTEROL should be of value to the post-operatively constipated patient. But the best reason is that it is of value.

And the most gratifying thing about it is that in most cases, while at first, the patient may need as mucch as I to I SS of INTEROL per day, with time, he can diminish the dosage to as little as half an ounce a day, or an ounce every other day, and even discontinue INTEROL for periods of time.

In many cases, INTEROL is the last resort to avoid another use of the surgeon's knife.

Abbott's Helpful Hints for the Busy Doctor has made its Autumn visit to our desk, and, as usual, it is just exactly what its name implies, a choice collection of helpful hints. Very naturally suggestions for ailments, that are more frequent in fall and winter, are emphasized particularly; only next in importance are the references to that very interesting new antiseptic of Dakin's, which is put on the American market under the name of Chlorazene. An interesting illustrated article is devoted to Doctor Slee's biological products. A number of short,

snappy and suggestive articles are certain of being of service to many physicians in their daily needs. Altogether, we consider "Helpful Hints" as a dignified and helpful house-organ, one of the best with which we are acquainted.

"Tongaline Tablets have given my wife quicker relief from rheumatism, with which she is frequently afflicted, than any other remedy. Tongaline Liquid is one of the principal ingredients in all my prescriptions for rheumatic and neuralgic complaints. Furthermore, I find it very efficacious for a rheumatic condition which I acquire as the result of exposure in riding."

"Rheumatic Pains Will Soon be Prevalent."

In the treatment of Gout, Rheumatism, and other conditions due to faulty elimination, Hayden's Uric Solvent will prove of service. It stimulates functional activity and thus aids in carrying off effects and other substances that encourage not only rheumatic conditions, but many skin diseases manifesting faulty elimination.

Formula, samples and literature, will be sent on request if a card is addressed to the

New York Pharmaceutical Co.,
Bedford Springs, Bedford, Mass.

Every Claim Abundantly Substantiated.

The place Gray's Glycerine Tonic Comp. has held in practical therapeutics during the past twenty-five years points in no uncertain way to the results it has accomplished in the hands of competent physicians, men who are abundantly able to judge of its usefulness as a simple, reliable and remarkably effective remedy in the treatment of all phases of debility, inanition and malnutrition of functional origin.

During all this time no claims have ever been made concerning the efficacy of Gray's Glycerine Tonic Comp. that have not been founded on—and abundantly substantiated by—the unsolicited statements of competent medical observers. The present widespread use of Gray's Glycerine Tonic Comp. by thousands of skilled, conservative physicians all over the country is due entirely to their definite knowledge of its action and effects. In other words, its use has been based on experience and judgment, and it is on these grounds—and these alone—that the manufacturers of Gray's Glycerine Tonic Comp. expect medical men to use this product.

Results—and results alone—are the criterion of the worth of a remedy, and it is on the results that it has achieved in the hands of the earnest painstaking physicians of the country that the success of Gray's Glycerine Tonic Comp. has been built.

Have you some patient convalescing from some acute disease? Why not try Gray's? Send for samples to the Purdue Frederick Co., 135 Christopher St., New York.

A Widely Useful Soap.

There are a number of so-called antiseptic soaps. Probably the most generally serviceable of these is Germicidal Soap, formula of Dr. Charles T. McClintock, which has been not inaptly designated "the soap of a hundred uses"—a soap made from pure vegetable oils and containing the powerful antiseptic mercuric iodide. As indicative of the germicidal power of this soap it may be said that a solution of it containing one part of mercuric iodide in five thousand parts of diluent will destroy pus organisms in less than five minutes. It is undoubtedly the most available antiseptic for the general practitioner. There are no solutions to carry. The soap is always ready for use. It does not stain linen or tarnish polished instruments.

Some of the uses to which Germicidal Soap is adapted are these: To prepare antiseptic solutions; to sterilize the hands, instruments and site of operation; to cleanse wounds, ulcers, etc.; to lubricate sounds, specula and catheters; to destroy infecting organisms in skin diseases; to disinfect surface lesions; to control itching in skin affections; to make solutions for the vaginal douche; to destroy offensive odors; to cleanse the hair and scalp and remove and prevent dandruff; the disinfect vessels, utensils, etc.; to wash and sterilize bed-linen used in the sick-room. It is apparent from the foregoing that the soap is at once an antiseptic, disinfectant, deodorant, sterilizer, lubricant and cleanser.

As most physicians probably know, Germicidal Soap, McClintock, is manufactured by Parke, Davis & Co. It is supplied in two strengths, containing, respectively, one per cent. and two per cent. of mercuric iodide. It is well to specify "P. D. & Co." when ordering from the druggist.

A New X-Ray Marvel.

Our readers will doubtless be much interested to learn that an extremely efficient X-ray apparatus suitable for the needs of the general practitioner has been developed and is offered at a price within reach of all. The new 2 K. W.

Hogan Silent Transformer, described elsewhere in this issue, deserves the best which can be said of it. Full description and a special offer good only during December, will be sent upon request by the manufacturers, the McIntosh Battery & Optical Co., 217-223 N. Desplaines St., Chicago, Ill.

Are You Seeking a Reliable Tonic?

Conservative medical men are neither asked nor expected to accept the opinions or conclusions of anyone else concerning the value of Gray's Glycerine Tonic Comp. The only request of the manufacturers is that the physician who is seeking a tonic, a dependable means of restoring the activity of the bodily functions, will give this remedy a fair and reasonable trial. To his conclusions as to the results obtained—his judgment as to the superiority of this remedy as a means of overcoming debility, inanition and malnutrition—the decision as to its use in the treatment of debilitated conditions is cheerfully left. Knowledge of what careful, painstaking physicians, however, are doing with Gray's Glycerine Tonic Comp. whenever a tonic is indicated, leaves no doubt of what that judgment will be, for it has been shown beyond all possible question that this efficient therapeutic agent has no superior in its field of use.

If you have some troublesome case in which you would like to try "Gray's"—write today to the Purdue Frederick Co., 135 Christopher St., New York City.

Increases The Physiologic Efficiency of The Stomach.

In no way is better shown the trend of modern medicine to revive and reinforce—rather than to supersede—the natural physiologic forces of the body, than in the present day treatment of functional gastric diseases. Only a short time ago there was one routine combination that was applied with almost religious fidelity in each and every case of stomach trouble, and that was pepsin and dilute hydrochloric acid. Fortunately an awakening came, and instead of supplying an artificial digestant, the patient to-day is to use measures that encourage the stomach to do its own work.

Among the therapeutic agents that have been found particularly effective in this respect, Seng easily stands at the forefront. Under its use the gastro-intestinal glands are stimulated, fermentation is promptly controlled, and the distress and discomfort that make the life of the average dyspeptic so miserable, rapidly disappear. And because these results are directly due to the power of Seng to increase the physiologic efficiency of the stomach, they are not temporary and fleeting; on the contrary, the benefits that Seng produces are prolonged, and with removal of causative conditions, the improvement obtained is as permanent as it is pronounced.

It is not difficult therefore to understand the place Seng has won in the regard of many a physician as the remedy of choice in all atonic forms of indigestion.

Simple, Efficient and Agreeable.

A great variety of means have been devised for the disinfection of the oral cavity—gargles, sprays, paints, and the compressed antiseptic tabloid—all of which are more or less troublesome, whilst the compressed tabloid is very uncertain, the antiseptics having frequently evaporated by the time the patient uses it. A convenient, effective, and pleasant method to bring a reliable antiseptic into constant contact with the pharyngeal and nasal mucosa, is to direct the patient to put 3 drops of Sander's Eucalyptol on a piece of loaf-sugar and allow it to dissolve in the mouth. The volatile nature of Sander's Eucalyptol makes it penetrate every crevice in the oral and nasal cavities, whilst it is also inhaled into the trachea and bronchi, in all of which it exercises a great antiseptic and, by virtue of its aroma, a salutary stimulant effect. In influencal sore throat this treatment is specific, the headache disappearing quickly and rapid general improvement following, especially if supplemented by internal doses of 5 drops Sander's Eucalyptol in a tablespoonful of water. Tonsillitis, the rheumatic, scarlatinal, diphtheritic and septic sore throats are all amenable to such treatment. In bronchial and asthmatic affections, it should be combined with steam inhalations to which 10 drops of Sander's Eucalyptol have been added. To avoid disappointment Sander's Eucalyptol should be specified. The common eucalpytus oil, containing as it does all woody extractives, is always irritating and, what is more objectionable, nauseous. Sander's Eucalyptol is prepared from the carefully selected leaves of a certain species, and any admixture of wood is scrupulously guarded against. It has no nauseous effect, no heart depressing action, and is standardised, producing always a constant and definite therapeutic effect.

Cancer usually begins at a point at which the tissues have been irritated for a long period of time.—Ochsner, Clean Living.

MANY A SUCCESSFUL PHYSICIAN

has learned from practical experience to appreciate the therapeutic efficiency of

Gray's Glycerine Tonic Comp.

FORMULA DR. JOHN P. GRAY

Its prompt effect on the appetite, digestion and nutrition can be confidently relied upon.

If you are not personally familiar with the remarkable tonic properties of "Gray's" write for special six-ounce sample.

CONSTITUENTS
Glycerine
Sherry Wine
Gentian
Taraxacum
Phosphoric Acid
Carminatives

DOSAGE—ADULTS: Two to four teaspoonfuls in a little water before meals three or four times daily.

CHILDREN—One-half to one teaspoonful in water before meals.

INDICATIONS
Auto-Intoxication
Atonic Indigestion
Anemia
Catarrhal Conditions
Malnutrition
Nervous Ailments
General Debility

THE PURDUE FREDERICK CO., 135 CHRISTOPHER STREET, NEW YORK.

Hands that are Rough, Cracked and Sore are restored to their natural softness and comfort by **K-Y Lubricating Jelly,** well rubbed in.

It "works in" quickly, and doesn't soil the linen. You know it as a surgical lubricant; it's "just as good" an emollient.

Collapsible tubes, druggists, 25c.
Samples and literature on request.

VAN HORN and SAWTELL
15-17 East 40th Street New York City

"Sick Headache"
—and other headaches—

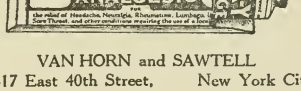
are usually relieved more or less promptly as you remove their cause. In the meantime—

K-Y ANALGESIC

locally "rubbed in," will usually afford comfort without blistering or soiling.

Gives Nature's Corrective Forces a Chance

No fat or grease. Samples and literature on request.
Water-soluble. Collapsible tubes, druggists, 50c.



VAN HORN and SAWTELL
15-17 East 40th Street, New York City

THE HOTEL MALBOURNE

Durham, N. C.

Will be headquarters for the Tri-State Medical Association of the Carolinas and Virginia — which will meet on the third Wednesday of February 1917.

There is no better Hotel in North Carolina than the Malbourne and I advise the members of this Association and the visftors who contemplate attending this meeting to write and make reservations at once, because the Society will be largely attended.

For information write

E. I. BUCC Mgr.,

Hotel Malbourne, Durham, N. C.

When the Heart Needs Help.

In everyday practice there is a constant demand for a safe and reliable cardiac tonic, a remedy that will correct irregularity of the heart's action, and at the same time give the aid and support needed to enable it to do its work satisfactorily.

Among the remedies that have been used to overcome the functional disorders of the heart, which, if not serious, nevertheless cause much anxiety to the afflicted patient, there is none that has proven so generally useful as Cactina-Pillets.

Non-cumulative in its effects, Cactina can be administered with every confidence in its power to support the tired, over-worked heart, regulate its action and as one physician has expressed it, "help it over the hard places."

Itis this dependable tonic action of Cactina that has led so many physicians to prefer it to other remedies in the treatment of tachycardia, tobacco heart, palpitation, arrhythmia and functional diseases of the heart generally. Its efficiency is shown in no uncertain way by the aid afforded "when the heart needs help."

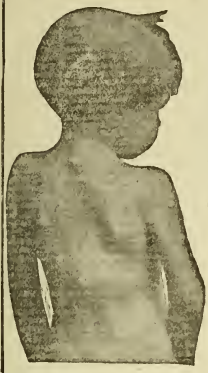
An Established Fact.

If there is one therapeutic fact that has been established beyond all question, it is that intestinal indigestion traceable to hepatic torpor and insufficient biliary secretions, will quickly respond to the action of Chionia.

This reliable preparation of Chionanthus Virginica is especially effective in these cases since it promptly stimulates the liver and produces a notable increase in the biliary output, without setting up pronounced catharsis. Thus it not only controls intestinal fermentation, but augments the secretory activity of the intestinal glands. As a consequence, the severe pain that so often characterizes intestinal indigestion—coming on two or more hours after the ingestion of food—is quickly controlled; the sallow, muddy complexion due to the absorption of intestinal poisons rapidly clears up; and the patient's whole condition shows substantial improvement.

All this serves to emphasize that few remedies are so efficient and reliable as Chionia in the ills that we very properly have learned to lay at the door of a sluggish, indolent liver.

If this little boy came to you, what would you do?



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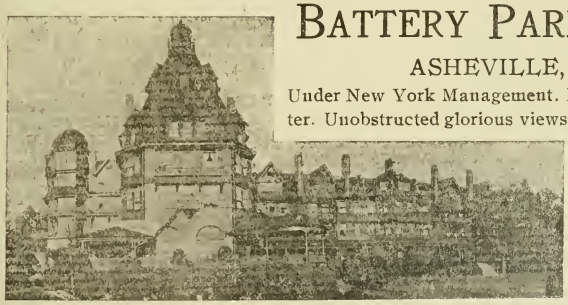

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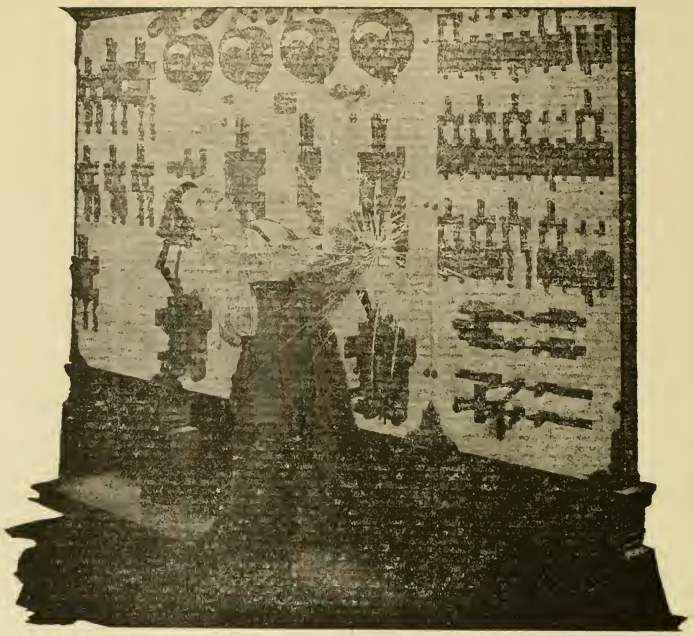

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8th District, Dr. J. W. Ring, Elkin, N. C.
9th District, Dr. M. R. Adams, Statesville, N. C.
10th District, Dr C. V. Reynolds, Asheville, N. C.

Delegates to the American Medical Association—Dr. J. W. Long, of Greensboro; Dr. W. L. Dunn, of Asheboro. Alternates—Dr. D. T. Tayloe, of Washington; Dr. D. A. Staunton, of High Point. Delegates to the Virginia Medical Society—Dr. J. W. McGehee, of Reidsville; Dr. C. S. Lawrence, of Winston-Salem; Dr. L. J. Picot, of Littleton. Delegates to the South Carolina Medical Society—Dr. A. B. Croom, of Maxton; Dr. M. H. Biggs, of Rutherfordton.

The next annual meeting of the North Carolina Medical Society will be held in Asheville, N. C., on the third Tuesday of next April.

OFFICERS OF THE TRI-STATE MEDICAL SOCIETY.

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Vice-Pres Dr.Chas. O'H. Laughinghouse,Greenville,N. C.
Vice-President, Dr. H. E. McConnell, Chester, S .C.
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Dr. Jno. N. Upshur, Richmond, Va.
Dr. Southgate Leigh, Norfolk, Va.
Dr. James K. Corss, Newport News, Va.

The next annual meeting of the Tri-State Medical Association will be held in Durham, N. C., on the thrid Wednesday of next February

Although every physician is subjected to more or less inconvenience by the requirements of the Harrison Act, comparatively little is experienced by those who are familiar with Neurosine. It is surprising the number of cases in which this preparation can be successfully substituted for the opiates. Neurosine has for years been recognized as a sedative, antispasmodic and hypnotic of unusual merit. Since the Harrison Law became effective its usefulness has been considerably increased. No records or any other legal requirements are necessary when Neurosine is prescribed, dispensed or purchased.

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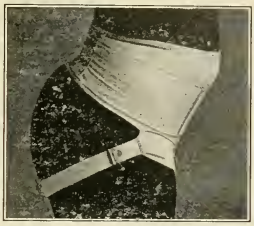

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Without Digestive Disturbance

Small Dosage

Even distribution of Iodine to all tissues of the body.

Requires 120 hours for complete elimination

Patients who cannot take Iodine in other forms can take comparatively large doses of Lipoiodine with impunity,

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Third revised and enlarged edition. 223 pages, Cloth $1.00, mailed post paid on receipt of price.

This little book was written with a distinct purpose, namely, to supply the constant demand from physicians for a concise, low priced book that would cover the subjects enumerated in the title. It does this so clearly that any physician by its aid can put Homoeopathy to the test and thus learn whether it would be advisable to go into it deeper. It does this so successfully that about 6,000 copies have been sold mostly to physicians of other schools. A knowledge of Homoeopathy will greatly aid any man in his practice.

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FOR THE CONSERVATION OF LIFE
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The Specific Treatment of Lobar Pneumonia

Immune serum treatment in lobar pneumonia has passed the purely experimental stage.

Lobar pneumonia is caused chiefly by the pneumococcus, of which there are three different fixed types. Antipneumococcic Serum prepared by the Mulford Laboratories is obtained from horses which have been injected with the three fixed types of the pneumococcus.

Forty per cent of all cases of lobar pneumonia are caused by type 1, and lobar pneumonia caused by this type is the most amenable to serum treatment, while types 2 and 3 are less amenable to serum treatment. Antipneumococcic Serum Polyvalent Mulford is highly potent in its protective power against lobar pneumonia caused by pneumococcus type 1, and also contains antibodies to the other types—2 and 3.

Intravenous injection of 50 to 200 c.c. is advocated by prominent authorities to insure immediate action

Antipneumococcic Serum Polyvalent Mulford is furnished in syringes of 20 c.c. each, and in ampuls of 50 c.c. for intravenous injection.

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Syringe A 250 million killed sensitized bacteria
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Tasteless—Odorless—Colorless

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THE reduction of diet in the treatment of obesity cases often leads to constipation. This may be successfully combated by the use of Stanolind Liquid Paraffin.

Stanolind Liquid Paraffin in no way hinders the reduction treatment, since it is entirely non-absorbable, and consequently a comparatively small amount serves the purpose. The contrary is true of vegetable oils, which are in large part digested and absorbed, so that considerable quantities must be administered in order to retain sufficient to lubricate the intestines.

Stanolind Liquid Paraffin does not rob the body of fluids as does saline laxatives; it does not disturb the liver and kidneys as do many drug laxatives; it prevents abnormal drying out of the food residues.

A trial quantity with informative booklet will be sent on request. 67a

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Charlotte Medical Journal.

A SOUTHERN JOURNAL OF MEDICINE AND SURGERY.

VOLUME 74
NUMBER 2

Charlotte, N. C., August, 1916.

$1.50 PER ANNUM.

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Our advantages make us headquarters for the organo-therapeutic products.

Armour's LABORATORY PRODUCTS

After the Diagnosis Comes the Remedy

WHEN Thyroid is indicated, the physician should demand Armour's Thyroids so that his patient may get the ***remedy.***

Armour's Thyroids is made from fresh selected glands; the powder is thoroughly degreased and the lots are made to run uniformly 0.2 per cent Organic Iodin in Thyroid combination.

Armour's Thyroids is supplied in powder, 1-4, 1-2, 1-and 2-grain Tablets.

Literature to medical men.

ARMOUR AND COMPANY

CHICAGO

M-38

Pituitary Liquid—is physiologically standardized and is free from preservatives.
1 c. c. ampoules, boxes of six.

Red Bone Marrow (Medullary Glyceride) Hematogenetic, Histogenetic;

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Pituitary, Anterior Powder and Tablets, 2 grain.

Pituitary, Posterior Powder and Tablets, 1-10 grain.

[Entered at the Post--Office at Charlotte, as second-class matter.]

MOTHER SAVES ENTIRE FAMILY.

They were driving along a hot, dusty road, trying to keep cool in the breeze made by the car when, "bang! cis-s-," went a tire.

"Oh, ——!" said the husband, "twenty miles from home and not a house in sight. It's hotter than the stoke hole of a steamship and I'm as dry as a shipwrecked sailor. I could stand for the tire if I only had a drink. Oh, ——!"

"Careful, John," interrupted the wife, "you are not setting a very good example for the children and talking will only make you thirstier."

"It can't," grumbled the husband, "nothing can make me thirstier. I'm so dry I'm beginning to warp. I tel lyou I could drink four gallons of last year's ditch water and die happy. Sands of Sahara! I'd give a dollar for anything that's wet."

"You would, would you?" inquired the wife as she hesitated for a moment in her fishing around for something under the seat. "Well just you hand over the dollar, please, and you'l lget something that's wort hit. Here's a whole bottle of Pepsi-Cola for each of us."

"What, Pepsi-Cola!" children an dfather shouted at once, "hurrah for mother!"

"That's the real stuff," went on twelve-year-old John, Jr., "it makes you feel bette rthan a swim in the creek. It was easy to cut the gras safter you gave me that bottle of Pepsi-Cola this morning, mother."

Charlotte Medical Journal.

A SOUTHERN JOURNAL OF MEDICINE AND SURGERY.

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EXAMPLE SETS ALL SOCIETY TALKING.

A pleasant surprise was sprung yesterday afternoon at the home of Mrs. J. Andrew Brown, where a number of ladies were being entertained at tea. The surprise lay in the fact that no tea was served. Mrs. Brown is noted for her charming entertainments and for the perfection of her refreshments; but even her skill as hostess was hardly able to combat the stifling heat during the hour that preceded the serving of what the guests thought would be tea. And even tall glasses of cold tea seemed hardly to inspire enthusiasm. Then came the surprise.

"No tea this hot afternoon, ladies," announced Mrs. Brown, "but a drink that I am sure you will find far more cooling and certainly more refreshing. For the rest of the summer it will be "afternoon Peps-Cola" at this house."

"And I shall follow your example, Mrs. Brown," said one of the guests, for the first time showing animation, "Pepsi-Cola is the most invigorating drink I ever tasted. The only way I could persuade the children to take their naps this afternoon was to promise them that nurse should give them Pepsi-Cola when they woke up."

We predict that from now on the popular hot weather invitation for afternoon functions will be: "Won't you drop in for Pepsi-Cole this afternoon." And the unexpected guest will be welcomed with, "just in time for Pepsi-Cola;" but this will be the case at any hour, for Pepsi-Cola is always as welcome as it is refreshing.

Charlotte Medical Journal.

A SOUTHERN JOURNAL OF MEDICINE AND SURGERY.

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NUMBER 4

Charlotte, N. C., October, 1916.

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True Substance. Powder, Tablets, 2-gr. and 5gr. Capsules.

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Powder and Tablets. 1-20 grain.

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Standardized Powder; Tablets, 2 gr., 1-2gr., 1-4 gr.

Parathyroids—
Powder and Tablets 1-20 grain.

Pituitary Anterior—
Powder and Tablets, 2 grain.

Pituitary Posterior—
Powder and Tablets; 1-10 grain

Extract of Red Bone Marrow

Histogenetic ---- Hematogenetic

RECOMMENDED in all cases where there is a paucity of red corpuscles--the anemias, chlorosis, marasmus, rachitis, tuberculosis, malarial cachexia and malnutrition generally.

Extract of Red Bone Marrow aids in reconstruction after hemorrhage and surgical operations.

Extract of Red Bone Marrow is very palatable and if given well diluted is always borne.

ARMOUR AND COMPANY
CHICAGO

M-42

[Entered at the Post--Office at Charlotte, as second-class matter.]

Judge Peach Springs a Big Surprise.

It was the middle of the afternoon and everyone was listless. The children had tired of games and the older folks of gossip. Clearly, the picnic to which they had all looked forward with so much pleasure was destined to become somewhat of a disappointment unless something happened pretty soon. The woods seemed hotter than the streets in town and the river sent back a blinding glare of light.

Just when everyone was feeling weary of the day's outing Judge Peach got up and announced: "Well, friends, I guess it's about time for me to spring my litte surprise. Get ready for a new lease on life and choose your partners for the gayest game you can think of. I'm going to let loose enough energy around here to start every one of you dancing."

"You can't interest me with that talk, Judge," drawled a long man stretched at full length on the grass, "dynamite couldn't get me up, it would just turn aside when it saw me in the way and tackle something easy, something like a few tons of brick. There's just one thing could get me on my feet and put fresh starch in my collar, and that's an ice-cold bottle of Pepsi-Cola."

"And it's Pepsi-Cola you are going to get, Sam Walsh," replied Judge Peach, "there are three dozen bottles of it in a tub of ice in the back of that wagon, enough health and happiness for everyone here."

Before the Judge had finished speaking there was a stampede for the Pepsi-Cola and five minutes later the refreshed picnickers were telling Judge Peach how he and Pepsi-Cola had saved the day.

Charlotte Medical Journal.

A SOUTHERN JOURNAL OF MEDICINE AND SURGERY.

VOLUME 74
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ARMOUR AND COMPANY
CHICAGO

M-42

[Entered at the Post--Office at Charlotte, as second-class matter.]

Her Pardner Saved The Danger

"If only it was not so hot," sighed the pretty girl as she tried to manipulate her handkerchief so as to absorb theperspiration without rubbing the powder off her nose. "If only it was not so hot the dancing would be lovely. But I feel like a rag and look like a beet."

"You look—you look," hesitated the youth, trying to summon courage and poetic fancy at the same time, "like a dewy rose to me." Then embarrassed at his gallant attempt, he hurried on with: "But I'll soon make you feel as fresh and sweet as you look, for that big punch bowl is full of the finest drink you ever tasted."

"My, you certainly think a lot of it," said the girl rather condescendingly. "Are you sure it's all right for me to drink? What is the name of this wonderful elixir?"

"Of course it's all right for you to drink it. Mother gives it to the children to keep them well during this warm weather, and they served it at the church social the other night; but I shall not tell you the name, not until after you have tasted it."

"Well, what do you think of it?" the young man asked a couple of minutes later.

"It's wonderful! It tastes so good, and I'm beginning to feel like dancing all night. Please tell me the name of it right away, please, and I'll give you the next dance."

"That's a bargain. It's Pepsi-Cola, the heat killer!"

Charlotte Medical Journal.

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VOLUME 74
NUMBER 6

Charlotte, N. C., December, 1916.

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Pituitary, Posterior Powder and Tablets, 1-10 grain.

Thyroids
[*Armour*]

"Thyroid preparations should contain at least 0.2 per cent. Iodin— but in some samples I cannot find a trace."
Sir James Barr
In British Medical Journal.

Armour's Thyroids is standardized and runs uniformly 0.2 per cent. Iodin in combination.

The physician will insure the benefits of thyroid treatment to his patients by demanding Armour's when prescribing Thyroids.

Armour's Standardized Thyroids, U. S. P., is supplied in powder, 1-4, 1-2, 1 and 2 grain tablets, bottles of 100, 500, 1000.

ARMOUR AND COMPANY
CHICAGO

1000

(Entered at the Post-Office at Charlotte as second-class matter.)

Did This Happen In Your Home?

"Whew, it's hot!" said the tired business man as he landed on the top step of the porch and was welcomed by his smiling wife and two armsful of children.

"Why, we don't mind it at all," objected the wife, with a knowing smile.

"No," chimed in the kiddies, "we don't mind it at all."

"You don't!" exclaimed the astonished husband, "You don't!" he repeated. And he looked out at the people in the street to see if they were showing the effect of a sweltering day, as he was. They were! Thus reassured as to the condition of his mind he said:

"Well, what do you do to overcome the heat," he asked.

"That's easy," smiled the wife. "We've just had our afternoon treat of Pepsi-Cola."

"Yes," peeped up little Jane, the youngest, "and it was just as cold as the icicle Jack put down my back last winter."

"Oh, I see," spoke up father, "got any left?"

Not at all fanciful is this little comedy of home life. It's just as true as true can be and it takes place i ncountless homes every bright mid-summer day when the sun is sweltering hot and all humanity feels that it would be far happier if this planet were an iceberg.

Pepsi-Cola, as you undoubtedly know, is not only tasty but cooling. It makes summer heat quit bothering you. Made of the purest fruit juices and other perfectly pure ingredients. That's why so many mothers use it as the ONLY beverage fit for their growing children during the warm months.

SOUTHERN MEDICAL SOCIETIES

MISSISSIPPI VALLEY MED. ASSOCIATION.
Annual Meeting at Indianapolis, Ind., October, 1916.
Henry Enos Tuley, M. D., Sec.,
705 S. Third St., Louisville, Ky.
Willard J. Stone, M. D., Pres.,
Toledo, Ohio.

SOUTHERN SURGICAL and GYNECOLOGICAL ASSOCIATION
Annual Meeting at White Sulphur Springs, W. Va., Dec. 11-13, 1916.
W. D. Haggard, M. D., Sec.,
184-8th Ave., N., Nashville, Tenn.
Thos. S. Cullen, M. D., Pres.,
Baltimore, Md.

SOUTHERN MEDICAL ASSOCIATION.
Annual Meeting at Atlanta, Ga., November 13-16, 1916.
Seale Harris, M. D., Sec.,
Birmingham, Ala.
Robert Wilson, M. D., Pres.,
Charleston, S. C.

TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.
Annual Meeting at Durham, N. C., February, 1917.
Rolfe E. Hughes, M. D., Sec.,
Laurens, S. C.
J. Allison Hodges, M. D., Pres.,
Richmond, Va.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.
Annual Meeting at Mobile, Ala., April, 1916.
H. G. Perry, M. D., Sec.,
Montgomery, Ala.
J. N. Baker, M. D., Pres.,
Montgomery, Ala.

AMERICAN MEDICAL EDITORS, ASSOCIATION
Annual Meeting at New York, N. Y., October 25-26, 1916.
J. MacDonald, Jr., M. D., Sec.,
92 William St., New York, N. Y.
Edward C. Register, M. D., Pres.,
Charlotte, N. C.

FLORIDA MEDICAL ASSOCIATION.
Annual Meeting at Arcadia, Fla., May 12, 1916.
Graham E. Henson, M. D., Sec.,
Jacksonville, Fla.
R. H. McGinnis, M. D., Pres.,
Jacksonville, Fla.

MEDICAL ASSOCIATION OF GEORGIA.
Annual Meeting at Columbus, Ga., April 19-21, 1916.
W. C. Lyle, M. D., Sec.,
Augusta, Ga.
W. S. Goldsmith, M. D., Pres.,
Atlanta, Ga.

KENTUCKY STATE MEDICAL ASSOCIATION
Annual Meeting at Hopkinsville, Ky., 1916
Arthur T. McCormack, M. D., Sec.,
Bowling Green, Ky.
J. W. Kincaid, M. D., Pres.,
Ashland, Ky.

LOUISIANA STATE MEDICAL SOCIETY.
Annual Meeting at Alexandria, La., 1917.
L. R. De Buys, M. D., Sec.,
Maison Blanche Bldg., New Orleans, La.
W. H. Seaman, M. D., Pres.,
New Orleans, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION
Annual Meeting at Greenville, Miss., May 9, 1916.
E. F. Howard, M. D., Sec.,
1st Nat'l Bank Bldg., Vicksburg, Miss.
I. W. Cooper, M. D., Pres.,
Newton, Miss.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.
Annual Meeting at Asheville, N. C., April 17, 1917.
Benj. K. Hays, M. D., Sec.,
Oxford, N. C.
Chas. O'H. Laughinghouse, M. D., Pres.,
Greenville, N. C.

STATE MEDICAL ASSOCIATION OF TEXAS.
Annual Meeting at Galveston, Tex., May, 1916.
H. Taylor, M. D., Sec.,
Fort Worth, Tex.
G. H. Moody, M. D., Pres.,
San Antonio, Tex.

SOUTH CAROLINA MEDICAL ASSOCIATION.
Annual Meeting at Charleston, S. C., April 19, 1916.
Edgar A. Hines, M. D., Sec.,
Seneca, S. C.
G. A. Neuffer, M. D., Pres.,
Abbeville, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.
Annual Meeting at Nashville, Tenn., 1917.
Olin West, M. D., Sec.,
Independent Life Bldg., Nashville, Tenn.
C. F. Cowden, M. D., Pres.,
Nashville, Tenn.

MEDICAL SOCIETY OF VIRGINIA
Annual Meeting at Norfolk, Va., October 31, 1916.
Paulus A. Irving, M. D., Sec.,
Farmville, Va.
J. A. White, M. D., Pres.,
Richmond, Va.

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Used in aqueous solutions of 5 to 50 per cent.

POWDER: Bottles of one ounce.
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Contents of two capsules make one-fourth ounce of a 10-per-cent. solution.

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SILVOL OINTMENT (5 per cent.), for application to regions where the use of an aqueous antiseptic solution is not feasible. Small and large collapsible tubes with elongated nozzle.

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Germicidal Soap combines the powerful antiseptic mercuric iodide with a soap made from pure vegetable oils.

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To prepare antiseptic solutions.
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To lubricate sounds and specula.
To destroy infecting organisms in skin diseases.
To disinfect surface lesions.
To control the itching of skin infections.
To make solutions for the vaginal douche.
To counteract the odors of offensive hyperidrosis.
To destroy pediculi.
To cleanse the hair and scalp.
To remove and prevent dandruff.
To disinfect vessels, utensils, etc.

Germicidal Soap does not attack nickeled or steel instruments. It does not coagulate albumin.

Germicidal Soap, 2% (contains 2% of mercuric iodide): large cakes, one in a carton.
Germicidal Soap, Mild, 1%: large cakes, one in a carton; small cakes, five in a carton.

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